

The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

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LONDON, SATURDAY, JANUARY 1, 1876.

[WITH SUPPLEMENT.] {PRICE SIXPENCE.
PER ANNUM, BY POST, £1 4s.

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25 Chapel House, £3 1/2. 20 Marke Valley, £3 1/2. 20 South Tolarie, 12s.
15 Chicago, £26 1/2. 20 N. Quebrada, £4 1/2. 50 St. Patrick, 27s. 6d.
30 Colorado, £23 1/2. 100 Old Trebutrett, 5s. 6d. 25 So. Roman Grav., 8s. 3d.
60 Don Pedro, 8s. 3d. 25 Pateley Bridge, £5. 70 West Maria, 6s. 6d.
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50 Exchequer Gold, 15s. 40 W. Tankerville, 23s. 9d.
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Bog	7s. 8s.
Chapel House	3 1/2. 4
Devon Great Consols	4. 4 1/2
Don Pedro	7s. 8s.
Eberhardt	8 1/2. 8 3/4
East Cardon	1 1/2. 1 3/4
East Van	2 1/2. 3 1/4
Exchequer Gold	13s. 6d. 15s.
Flagstaff	1. 1 1/2
Gawton	3 1/2. 3 3/4
Hington Down	17s. 6d. 20s.
Javali	11s. 13s.
Marke Valley	3 1/2. 3 3/4
New Rosario	4. 4 1/2
Old Trebutrett	5s. 7s.
Parys Mountain	11s. 12s.
Pateley Bridge	4 1/2. 5
Pennerley	1 1/2. 1 3/4
Penrith	8s. 10s.
Prince of Wales	5s. 6d. 6s. 6d.
Plympton	6s. 7s.
Richmond	£ 7 1/2. £ 7 3/4
Roman Gravel	12. 12 1/2
St. Patrick	1 1/2. 1 3/4
San Pedro	2 1/2. 2 3/4
South Condurrow	5. 5 1/2
So. Roman Gravel	7s. 6d. 8s.
Sweetland Creek	10 1/2. 11
Tankerville	10 1/2. 11
Tincroft	19 1/2. 20 1/2
Unity Wood	1 1/2. 1 3/4
Van	32. 33
Van Consols	1 1/2. 1 3/4
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West Tankerville	1 1/2. 1 3/4
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Wheel Crebor	2 1/2. 2 3/4
Wh. Kitty (St. Agnes)	2 1/2. 2 3/4
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30 Alamillos, £1 19s. 6d. 75 Frontino, 24s. 9d. 50 Richmond, £7 1/2.
15 Blue Tent, £4 1/2. 15 Fortuna, £5 3s. 9d. 25 Roman Grav., £12 1/2.
10 Birdseye Creek, £26 3s. 50 Hington, 20s. 30 So. Condurrow, £5 1/2.
100 Chapel House, £3 1/2. 50 Ladywell, £2 8s. 6d. 50 Sweetland, £3.
50 Chontales, 12s. 6d. 40 Marke Valley, £3 12s. 6d. 100 St. Patrick, £1 7s. 6d.
75 Cedar Creek, 23s. 3d. 40 Pennerley, £1 12s. 6d. 20 Tankerville, £10 17s. 6d.
100 Cathedral, 24s. 15 Van, £32 1/2.
20 Cape Copper, £26 1/2. 30 Pennant, £5 3s. 9d. 50 Van Consols, £1 13s. 9d.
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THE METAL TRADE—ANNUAL REVIEW.

REMARKS.—At the commencement of the year 1875 the prospects for the metal market bid fair to be, if not all that could be desired, yet such as should result in fair average returns. Towards the close of the previous year there had been some pressure in the money market, such as would have a natural tendency to check speculative operations, but with the turn of the year this feeling of uneasiness subsided, and it seemed probable that a renewal of activity would characterise our markets, and business would improve. These expectations were confirmed, as orders began to come forward from foreign markets, which although small in the aggregate, yet were many in number, so that it was hoped that with the growth of commercial activity as the season advanced larger shipments would follow. The trade of the East, which had lagged for so long, appeared to show signs of revival under the combined influences of a condition of peace, a good monsoon, and the consequent prospects of a fair harvest. On January 14 the state of the money market justified the reduction of Bank rate to 4 per cent., by which financial facilities were afforded, and doubtless the needed confidence would have been imparted which would have encouraged buyers to come forward had it not been for the continuance of an unfavourable prognostication regarding the future relations between capital and labour, which had already inflicted so serious an injury upon the producing powers of the country. On January 28 Bank rate was further reduced to 3 per cent., but by this time the affairs of South Wales had assumed so portentous an aspect that the cheapness of money altogether failed to impart any vitality to the market. As the telegraphic wires flashed the intelligence to the four quarters of the globe that in the course of a few days 100,000 operatives might be thrown out of employ, and that the attitude of the contending parties was one of unyielding determination, it was not surprising that operators in our markets should stand aloof and watch the result of the conflict.

At the beginning of February there was but little doing. Holders saw no reason to endeavour to impart vitality to trade by quoting lower prices, for the temper of buyers was such that concession in price at the moment would hardly have proved much of an inducement, so quotations remained very much unchanged, and the market continued dull. On Feb. 18 Bank rate was advanced to 3½ per cent., but no change was observable in the condition of metals. Extreme caution formed the chief characteristic of the market, and, as the event proved, it was just as well that this caution was exercised. About the middle of March several failures were announced, which had naturally the effect of inducing still greater caution, and of still further restricting business, but no important change occurred in the value of metals. After the announcement of the failure of Messrs. im Thurm a slight improvement occurred in the amount of business transacted in both copper and tin—in the latter at somewhat improved prices. Towards the close of March the Easter holidays interfered with business, and with the beginning of April there were indications of an improvement, but whether to be of a permanent or ephemeral character it was impossible to say. The spring season had advanced, but without bringing any corresponding advance in the revival of trade. In many parts of Northern Europe the winter had been of longer duration than usual, and it was not until this month had set in that some of these ports were open to trade, but preliminary arrangements had not been made, and advice as to the future were not satisfactory. The position of the money market was steady, and it appeared that with a return to a good understanding between masters and men a profitable business might yet mark the history of the year which was still young.

But April closed, and with it the first month of the second quarter of the year, without any improved result; indeed, owing to the protracted sluggishness of trade prices had fallen, and confidence as to the future was at a low ebb, speculators retired from the market, and the dullness became more profound. The month of May might possibly have been more fruitful of favourable results had there not been a succession of failures announced towards its close, which again hindered any tendency towards improvement. These, however, were but the forerunners of a heavy list of more serious catastrophes, which were announced during the succeeding month of June. The failure of Colliers brought with it a large number of indirect consequences. A universal feeling of disquietude and uncertainty pervaded the minds of City men, and it took some time to establish the assurance that the worst was over, and that fresh complications were not likely to arise. Manufacturers endeavoured to reduce production as much as possible, and as the midsummer holidays were now approaching it was thought advisable to postpone all idea of a return to activity in trade, at all events until after the autumn. Thus the first half of the year had come to an end without in any degree altering for the better the condition of trade. All that could be said was that consumption was perforce going on, and that a time must come when a legitimate demand would prove an encouragement to manufacturers once more to put forth their energies to supply the same at profitable prices. Bank rate, which was advanced on Feb. 18 to 3½ per cent., continued at that rate until July 8, when it was reduced to 3 per cent. During July some measure of anxiety began to be felt about the harvest, in consequence of the heavy and long-continued rains, which were so widespread and proved so disastrous, not only in this country but in the various corn-producing countries throughout the world. Throughout July these fears were not allayed, but at the close of the month the rains ceased and a gleam of welcome sunshine gave promise that the harvest might yet be gathered in in fair condition, and prove, if not abundant, sufficient to prevent any great scarcity and a rise in the price of bread. With these improved prospects there was a measure of improvement in metals; rather more business was transacted, and it appeared as if a slight concession in price as regards some metals would have resulted in considerable business, while as regards others, it seemed that they must be brought to a lower standard before any permanent renewal of activity could take place in them.

On July 29 the Bank rate was reduced to 2½ per cent. This alteration was very generally expected, because of the difficulty experienced in finding employment for money. Throughout the month of August no change occurred of any importance in metals. The disturbances in Turkey produced no effect upon the metal market. While the Stock Exchange showed fluctuations fraught with very serious consequences, metals remained unmoved. There was very little doing. Production was limited, and many thousands of operatives, whose calling was in iron mines or some other branch of industry connected with metals, were seeking a livelihood in the more agreeable and remunerative exercises of the harvest field. On Aug. 12 Bank rate was reduced to 2 per cent. During the early days of September the markets maintained their position, and the tendency being generally towards increased firmness, it seemed improbable that there would be any very important fluctuation in price until the turn of the year.

The autumn trade, if limited in extent, promised to be fairly steady, and though the support afforded by those markets whose ports are closed during the winter would in due course be withdrawn, yet the home trade and that of the Continent appeared to be on a sufficiently firm basis to ensure pretty generally a fair business of a sound character. The credit system had found it impossible to survive such a long protracted period of disaster, for never during the many months that had past of the year, and of that which preceded it, had a single favourable opportunity arisen to give new life to this most unsound kind of business. It had received its death blow, and those markets which had been upheld by the longest credits had naturally suffered most. A wholesale check had been given to schemes which could possibly answer no good purpose, and new undertakings of a less questionable character had been held over until times should improve. On the whole, the business for the month of September, though small in the aggregate, was sound and satisfactory. During the month of October the character of the business transacted exhibited no change. The Bank rate was advanced on Oct. 21 to 4 per cent., but this advance was caused mainly by the withdrawal of

gold, and not by the demand for money for mercantile purposes, such demand continuing at low-water mark.

The month of November is generally considered to be the commencement of the dull winter period, and the experience of this year proved no exception to the rule. Not only was the home trade quiet, but the difficulties which encompassed Germany, Spain, Turkey, and Egypt affected our trade with these countries, while Russia, the two Americas, India, and Australia presented no more favourable field for the extension of trade in those directions. During this month violent fluctuations were reported on the Stock Exchange in reference to certain foreign securities, and rumours of repudiation were very generally current, and the possible overclouding of the political horizon tended still further to intensify the pre-existing dullness, and to diminish the amount of business done. On Nov. 18 Bank rate was reduced to 3 per cent., and a brisk business resulted in bills which had been kept back in anticipation of the reduction of the official minimum, but the metal trade experienced no benefit, simply remaining *in statu quo*. Throughout December there has been no change of any importance in the position of the markets, and it may be said of almost all metals without exception that holders and producers, buyers and sellers, are compelled to abide the tide of events. No artificial combination, be it what it may, can produce more than a monetary spasmodic action, after which the old condition of affairs returns. What is wanted, and what sooner or later will occur, is a return to the healthy action of legitimate commerce, and the best wish we can express for our readers in the coming year is that they may trim their course with such discretion that when the fair breeze springs up they may be prepared to seize the earliest advantage. Bank rate continues at 3 per cent., to which it was reduced on Nov. 18.

COPPER.—At the beginning of January the price for Chili bars stood at 83½ to 84½, and the market, though quiet, was steady, and as the charters for the last half of December were light holders became very firm, and a large business was concluded in manufactured, and Chili bars were in request at 84½. Wallaroo cake realised 93½, and ingots 94½. Business was done in 4 by 4 India sheets at 96½. As the month drew to a close the market became quiet, and at the close Chili bars had receded to 82½ to 83½. Business was reported in yellow metal at 8½, and a fair Indian enquiry maintained for 4 by 4 sheets. For the first fortnight in February the firmness of the market continued. Holders would only sell in very small quantities, and at full rates. The chief support arose from Indian advances, and it was thought that this presented a firmer basis for a permanent advance than had it resulted merely from a speculative movement. The market being in a very sensitive condition, a slight increase in the stringency of money kept it quiet, notwithstanding the receipt of fresh advice, and the month wore away its close quotations were so firmly held as at the beginning. Chili bars, named brands, 84½, and g.o.b. 82½ to 83½. Up to the month of March the market from the West Coast had been beyond the average, and yet the market had been fairly upheld. The announcements of light charters early in March contributed to afford additional stability to prices, and inasmuch as importers and holders had very generally given higher prices than those at which copper could at the time be realised, there was a marked disposition to submit to the loss which a sale at current quotations would have involved. The home trade in manufactured was quiet, but, although the Indian demand was not so brisk as it had been, it sufficed to afford support to prices. Some fair orders about this time were received on Russian account, and there was an anticipation that the Canadian market would be fruitful of results.

Upon grounds such as these the market was upheld for a time, but although quotations were sustained but little business of any importance was transacted during the month, and at the close the market was weaker, g.o.b. not being saleable above 81½ to 82½. In the early part of April the market became firmer, and a number of small orders were made, but towards the middle of the month buyers retired from the market, but holders did not appear disposed in the face of the statistically improved position of the metal to lower quotations, so that little business was actually done. During the latter half of the month of April the announcement of light charters gave an impulse to business, and the market becoming active, prices advanced for g.o.b. Chili bars up to 82½ to 83½, which was about the quotation at the end of the month. Throughout the month of May the statistical position of the market was such as to support quotations in the early days of the month. The business, too, was of a *fourth* character, and there was no speculation. As the statistical position of the market became known it was clear that it was strong. Stocks were not in excess, and charters continued moderate. The opinion of the smelters was clearly indicated in that they became the ready purchasers of ore and regulus, not only for spot parcels, or those near at hand, but for distant shipments. The demand and supply were kept very evenly balanced, and as money kept cheap it did not seem probable that prices would go back; but during the month of June a growing feeling of uneasiness became manifest regarding the position of certain mercantile firms, and although the copper market was only indirectly affected still the demand became contracted, actual business increasingly limited, and though there was no variation in quoted value of copper the quotations were more nominal than indicative of business done. The quotation for Chili bars, g.o.b., at the end of June was 82½ to 83½.

The tendency of prices during the early part of July was downward, and business became more and more limited, and when about the middle of the month heavy quotations were announced the effect of the announcement was still further to depress quotations. There were no buyers but for the smallest quantities for present wants, and at the end of the month the limited business that was done in Chili bars was concluded at about 78½ per ton, usual cash terms. But from this point there was a rebound, and early in August the market became firm; sellers refused to sacrifice their holdings. The statistical position continued sound, and by the middle of the month, although owing to the summer holidays many of the operators were out of town, and so business was limited, yet Chili bars had improved to the extent of 2½ to 3½ per ton, and the old figure 82½ to 83½ was once more the quotation on 2½ to 3½ per ton. These quotations were fully maintained until the close of the month, when increased activity became observable in some departments, owing mainly, perhaps, to a large business having been done in furnace material. Upwards of 25,000 tons of ore, being four cargoes, were sold for arrival at 18s. 6d. per unit. Buyers of Chili bars found it difficult to effect purchases at current rates. Australian copper improved in demand, and English smelters were more inclined to do business for forward delivery at enhanced rates than to book orders for early delivery at current rates. At the close of the month 82½ to 83½ was the quotation for Chili bars, g.o.b.

Early in September the market was again depressed by heavy charters from the West Coast, which flattened the market; but as sellers were unwilling to submit to the concession in price which buyers required, the market gradually became firmer, and as the necessities of smelters compelled them to buy prices were maintained until the immediate requirements of consumers were met, after which, owing to the great slackness in demand, quotations receded, but improved towards the close of the month, at which date Chili bars, g.o.b., stood at 82½ to 83½. Throughout the chief part of October current quotations remained unaltered, and were fully maintained, the demand being sound, and the statistical position continuing sound, but towards the close there was a marked tendency towards increased quietness, and at the close of October Chili bars, g.o.b., stood nominally at 81½ to 82½. During November the market underwent very little change. Business was very limited, and the revival of the old association among the smelters with a view of making prices more remunerative, which arrangement was entered into during November, did not seem to do much towards improving the market.

These are rather the days of free trade than those for the imposition of restrictions, which, judging from former and now from present experience, fail to be productive of real benefit to any, and so soon as these restrictions prove prejudicial to individual interests the Syndicate falls to pieces and the original course is once more adopted. At the close of November Chili bars were quoted at 81½ to 82½ to 83½. For the first fortnight in December the market remained very flat, and prices receded to 80½ for Chili bars, since which rather more firmness has been observable, and business has slightly improved; but still there is comparatively very little doing, and prices are maintained rather by the firmness of holders and the fairly active condition of the home trade than by export business. The Continent is taking very little copper just now, and the demand for India is very limited. Chili bars are now quoted 81½ to 82½, according to brand.

IRON.—Three years ago commenced the struggle between capital and labour, which has been in one form or another the bane of the iron trade from that time to this. What has been gained by the continuance of the fight it is hard to say. What has been lost is but too apparent. There can be but one universal testimony, that the disaster is of national importance. It affects all classes, and those that are least able to bear the brunt of the battle are they who are called upon to endure the most. It is but little consolation to say that had the action of the operatives been marked by a more enlarged view of the real state of the case much of the present suffering would have been averted. The trade of the country, which has been directed to other channels, would still have been flowing towards our shores. True, the conditions of commerce are such that, under the most advantageous circumstances, the past year would not have proved a prosperous year, but sufficient trade would surely have been done to prevent the utter and total collapse which has ensued, and the prospect of the future would probably have been less dark than it now is.

At the beginning of last year the market for Scotch pig iron, which is very much the index of the trade, was weak; prices were dropping, and mixed numbers were quoted 78s.; ordinary sections of rails, 7½ to 8s.; ship plates, 9½ to 10s.; and merchant bars, 8½ to 9s. Throughout the month great anxiety prevailed. It was clear that a struggle was imminent, the magnitude of which it was impossible to gauge, and

the duration of which could not be foretold. In the expectation of the probability which loomed in the future, some of the second class houses held out the bait of quotations considerably below those of the best houses, but without success. Buyers could not be induced to come forward. At the close of the month pig-iron was quoted at 72s. 9d. to 73s. 6d. The month of February opened with the intelligence that 100,000 men were thrown out of employ in South Wales by reason of a general lock-out. Had it been otherwise, there was a fair prospect of a moderate spring trade. Orders were becoming more plentiful, and for larger quantities, but under the then existing condition of affairs buyers were constrained to look elsewhere for the completion of their orders. The trade with America and other important markets seemed to have ceased, and the condition of affairs in South Wales seemed to be reflected in the North of England. Furnaces were damped down, and all operations connected with the iron industry began to be contracted within the narrowest limits. No sooner was the make of pig-iron reduced than prices became firm, and at the close of February quotations for mixed numbers had advanced to 75s.

During March the market showed no improvement, and as matters got no better they naturally got worse. Business became still more contracted, and prices dropped. The Scotch pig-iron market gave way, and mixed numbers were quoted at the close of the month 70s. 9d. The month of April so far witnessed a measure of improvement, that, although matters in South Wales presented no change, yet in the North of England some orders for finished iron were booked, which seemed to afford some hope of a continuance of work, which was much wanted; but by the close of the month it became pretty clear that the animation which had characterised the early part was but of an ephemeral nature, and things had once more drifted into the old condition of dullness. Scotch pigs, mixed numbers, were quoted 67s. 3d.

The weekly reports of the trade in the month of May were relieved from the dead level of the weary reiteration of no change by a final letter from Lord Aberdare, in which was shown from data furnished by the men themselves what, at a moderate computation, the losses inflicted by the conflict involved. A total loss in wages of 3,000,000, was the result of careful calculations. The consequential losses to capital on the one hand, and to the men on the other, it was impossible to compute. During the month the activity of foreign competition became increasingly apparent, but the disease was of too malignant a character for even such startling revelations as these to effect any change for the better. By the end of May m. n. Scotch pigs were quoted 69s. 9d. The disclosures made in the month of June did not tend to make matters more cheerful. The failure of the Aberdare Company was announced. The balance-sheet of the Ebbw Vale Company exhibited a loss of 55,000, upon the year's operations, and as the weeks rolled by it only appeared that masters and men were drifting more hopelessly apart, and consequently there was but a minimum of hope that a satisfactory settlement would be arrived at. The quotation for Scotch pigs, m. n., was at the end of June the same as at the end of the previous month. The month of July was as like its predecessors as possible. However ready the contending parties might have been to form some compact to carry on the works, it appeared now that they were too late, buyers had made other arrangements, works elsewhere had been placed in a position to take the orders which might have been executed by us, and there was little to be done but look on and wait the tide of events. At the end of July Scotch pigs, m. n., stood at 69s. 3d. During the first week in August there were some slight indications of improvement in demand. The shipbuilding trade began to look up. The demand for North of England pig-iron for the Scotch market continued to afford a strong measure of support to Middlesbrough prices. Foreign shipments, too, were on a large scale. Enquiries began to find their way again into the Welsh district, and as the men were disposed to go in upon terms such as the masters could work upon, more actual business was transacted than for many months past. In one week of the month of August it was reported that three-fourths of the whole quantity of iron cleared for shipment abroad during the year from Cardiff was shipped. Large shipments were made to Sweden. The demand for rails improved. Buyers became aware that stocks were being reduced, and that makers were determined to restrict production, and deemed it advisable to purchase somewhat more freely. Notwithstanding the heat of the weather more work was executed in Wales in one week in August than any previous week of the year. At the close of August Scotch pigs, m. n., were quoted 63s. 9d. The improvement of August was fairly maintained during September. In the North of England this was fully the case, but not so markedly in Wales, where, as the orders previously taken worked off, but few fresh orders were booked. Scotch pigs, m. n., advanced to 65s. 3d. With the month of October we entered upon the quietest of the year. The shipping season began to draw towards its close. All orders for the ports of Northern Europe had been sent out ere this, and were being fast executed, and it was known that no further support could be expected from that quarter. The demand from other sources became slack, and it was soon very evident that the quietness which had been the marked characteristic of the market for so many months, and had only been partially relieved by the comparative activity of August and September, was about to assert the old supremacy, which it was probable would be maintained during the rest of the year. Very little was done during the month, and at the close Scotch pigs were quoted 65s. 3d. During the month of November production on all sides was still further reduced. Blast-furnaces were blown out, rolling-mills were stopped, and large bodies of men dismissed. Failures connected with the iron trade were announced, and the marvel was that such announcements were so few, and that the disaster was not wider spread. Owing to lessened production, and the steadiness in the demand consequently resulting, Scotch pig, m. n., underwent but little variation, and at the close they stood at 61s. 9d. Throughout December the market continued much in the same condition. Owing to the continued operation of the causes already adverted to, the market was fairly sustained, but the condition of the finished iron trade was lamentable in the extreme. At the close of the year the price of Scotch pigs, m. n., was 64s. 9d. cash.

LEAD.—At the beginning of the year lead was very firm, and in consequence of the decreased production it seemed probable that prices would be fairly maintained. Good soft English pig realised, in the month of January, 23s. 15s. During February the market was very quiet, and quotations receded to about 22s. 10s. for English pig, and 22s. for soft Spanish. The tendency of prices during March was still downward. The advices from China were not very satisfactory, and at the close of the month good soft English pig was quoted at 21s. 5s. Throughout April the market became firm, and prices rose to 22s. 15s. for English pigs. Until the middle of May the market continued firm, but during the second half of the month quotations were maintained, but only a limited business was done. The month of June witnessed no improvement. The market continued inanimate, and at the close the price of English pig was 21s. 5s. In July the position of the metal market improved, and the price of English pig rose to 22s. This advance was fully maintained throughout August, and at the close the price of pig-lead had advanced to 23s. There was no change in September, nor until the middle of October, when prices became somewhat easier, and at the close pig-lead was quoted 22s. 10s. From this time to the middle of December there was little change, but about this time the market grew firmer and prices advanced, the present quotation for good soft English pig-lead being 22s. 10s., and soft Spanish, without silver, 22s. 5s.

QUICKSILVER.—The following extracts from an article in the *San Francisco Journal of Commerce* upon quicksilver may prove of interest to some of our readers:—"No one can tell the extent of the quicksilver resources of the State, and it has been only within the past two years that an approximate idea of their extent could be had. During these two years there has been done more in the way of developing them than for 23 years previously, and the article itself has become quite an important one in a commercial sense, ranking fourth in our list of exports. The future development of the business of quicksilver mining promises to raise it to even a much higher position. The total quantity of quicksilver produced in the State since the first opening of the mines up to Jan. 1, 1875, may be estimated at 893,979 flasks, or 62,224,393 lbs. Of the production since the beginning of the year no exact figures can be yet given, but up to Nov. 1 it may be estimated at 35,000 flasks, or 2,524,500 lbs. This would make the total production of the State up to Nov. 1, 718,979 flasks, or 67,748,893 lbs. Official records as to the quantity of quicksilver exported from the State, the balance having been used in the mines of the Coast, or exported previous to 1859. The production of the first 10 months of the present year has been in the neighbourhood of 35,000 flasks, of this about two-thirds has been exported by sea, the balance of about 11,600 flasks is left to be used in the mines, but as the utmost that has been taken in that way previously has been 7000 flasks, this would show an immense increase in the consumption during the present year. California will this year supply a little less than one-half the world's consumption, or about 40,000 flasks. The total supply will probably be—

California	36,000
Idria (Hungary)	8,000
Pointe-à-Pic (Germany)	1,000
California	40,000
Total	85,000

In 1858 California supplied over 43,000 flasks, and next year will supply even more than that. In a few years it will become the principal producing country in the world. The Spanish mines of Almaden have been worked since the time of the Carthaginians. Its product in modern times has varied from 30,000 to 40,000 flasks annually, and it cannot be expected at this time to produce much more. Neither can the mines of Germany. The production of the Hungarian mine at Idria has been in former years restricted by law to the production of 4000 flasks annually. During 1874 it produced double that amount, its total estimated producing capacity yearly being 16,000 flasks. There are deposits of quicksilver in South America, but there is no prospect of their being worked for some time. The present consumption of England is from 40,000 to 50,000 flasks annually—say, 45,000. That of the rest of the world is about the same, so that any increase in the production of California might be expected to result in a great fall of prices. However, the consumption of quicksilver, like that of most other things, is regulated by the price. The price here during the next year cannot fall below 50c. to 55c., and will not advance much beyond 75c. to 80c., but the low price is a paying one, and an increased consumption would do much towards keeping up the gross profits of those engaged in quicksilver mining to their present level. The course of the London market throughout the year can be followed by reference to the following table of prices upon stated dates:—Jan. 1, 1875, 24s.; Feb. 1, 22s.; March 1, 21s.; April 1, 19s.; May 1, 18s.; June 1, 17s.; July 1, 16s.; Aug. 1, 15s.; Sept. 1, 14s.; Oct. 1, 13s.; Nov. 1, 12s.; Dec. 1, 11s.

TIN.—At the commencement of the year there was a speculative movement in this metal, and 94½ to 95½ was paid for Straits and 93½ for Australian. During the first fortnight of January prices were firmly maintained, but at the close of the month Straits was not worth more than 92½. Throughout February the market lacked animation, and at the close quotations had fallen to 90½. By the middle of March values had fallen to 84½ for Straits, when there was a sudden reaction, and at the close of the month the market was firm at 90½. From this point till the end of April the tendency was to lower prices, and at the close Straits stood at 83½. There was but little variation throughout May, and during June a fair business was done, and the market was at slightly advanced quotations. At the close 83½ to 84½ was the price for Straits.

During the whole of July there was very little doing, and prices ruled downwards; at the close Straits was quoted 78l. 10s. But during August the market rallied, and prices gradually improved until at the close the quotation for Straits was 82l. 10s. to 83l. The improvement continued throughout September, and at the close Straits stood at 84l. All October the market was quiet, but prices were fairly sustained; at the close 85l. was quoted for Straits. During November prices fluctuated, but at the close of the month the value of Straits showed a drop to 82l. 10s. No new feature occurred during the month of December, and at the close of the year Straits tin stands at 84l. 5s.

THE SCOTCH IRON TRADE—ANNUAL REPORT.

The year 1875 may be described as commercially unsatisfactory. Embarrassments on a gigantic scale—mercantile and financial—marked its progress, and in some instances disarranged the ordinary course of business. These combined have intensified and prolonged the depression experienced in the iron trade. According to the authorised statistics, the production of pig-iron for the year just ended was 1,050,000 tons, which shows an increase of 244,000 tons, against 806,000 tons in 1874. This increases the reserve stock 74,000 tons when compared with last year, and brings up the total to 170,000 tons, as undernoted. The exports of iron and steel have fallen off 8½ per cent. in quantity, and 21 per cent. in value, which tells adversely on the manufacturers of the year. Taking the general aspects of the Board of Trade returns, the result of the year's work exhibits a noticeable decrease in the exports—hence it follows that, whatever prosperity 1876 may unfold, the present year shows a decline in the business of the country, and a lull in the commercial energy of the world. The fluctuations in the price of iron during the year have ranged between 77s. in January to 85s. in June, giving an average in the twelve months of 85s. 9d., against 87s. 6d.—the average of last year. Special brands, however—such as Gartsherrie, Coltness, Calder, Glenarnock, Langloan, Summerlee, and Shotts—were better, and fluctuated between 92s. 6d. and 70s. per ton. The stock of pig-iron abroad is everywhere small, with the exception of the United States, where it is returned at one million tons. Foundries have generally been well employed, but the malleable works and shipbuilding yards have experienced a languor which they have found it difficult to overcome. There are indications, however, that with cheaper labour a revival in these branches may be looked for; but, in order to bring about this very much desired result, workmen must show a greater willingness to submit to the new and inexorable laws which regulate supply and demand both for employer and employee. THOMAS THORBURN, Glasgow, Dec. 28.

STATISTICS OF THE SCOTCH IRON TRADE.

Proprietors.	Works.	In blast.	Out.	Total.
Wm. Baird and Co.	Gartsherrie	13	3	16
ditto	Eglinton	6	2	8
ditto	Lugar	4	—	4
ditto	Muirkirk	3	—	3
ditto	Portland	3	3	6
Merry and Cunningham	Glenarnock	7	2	9
ditto	Ardeer	4	—	4
ditto	Carbroe	4	2	6
Coltness Iron Co.	Coltness	12	—	12
Dalmellington Iron Co.	Dalmellington	6	2	8
Monkland Iron and Coal Co.	Monkland	9	0	9
Robert Addie and Sons	Langloan	6	2	8
Summerlee Iron Co.	Summerlee	5	3	8
James Dunlop and Co.	Clyde	4	1	5
Colin Dunlop and Co.	Quarter	4	1	5
William Dixon (Limited)	Govan	4	1	5
ditto	Calder	3	4	7
Shotts Iron Co.	Shotts	3	—	3
ditto	Castlehill	2	1	3
Wishaw Iron Co.	Wishaw	2	1	3
George Wilson and Co.	Kinnell	3	1	4
Lochgelly Iron Co.	Lochgelly	—	4	4
A. Christie and Co.	Lumphinnans	—	2	2
Carron Iron Co.	Carron	—	2	2
Jas. Russell and Son	Almond	2	1	3
Henry Cadell	Bridgess	—	2	2
Total		114	41	155
Dec. 28, 1875. Dec. 29, 1874.				
Messrs. Connal's stores	Tons	63,299		33,875
In makers' hands, as per their returns		196,701		62,125
Total	Tons	170,000		96,000

THE WORLD'S PRODUCT OF SILVER.—An interesting table, showing some of the leading estimates which have been made of the world's product of silver, has been prepared by Dr. R. W. Raymond, of the New York *Engineering and Mining Journal*, showing that whilst in 1800 the annual yield was about 7,000,000, in 1850 it had increased to over 8,500,000; in 1854 to 9,500,000; and in 1865 to 12,500,000; whilst Dr. Raymond's estimate for 1873, based upon the latest available official returns, shows—Great Britain and colonies, 200,000; Sweden and Norway, 50,000; Russia, 100,000; Austro-Hungary, 320,000; Germany, 600,000; France, 400,000; Spain, 400,000; Sardinia, 100,000; Mexico, 4,000,000; Central and South America, 1,600,000; Canada, 180,000; and the United States, 7,300,000=15,250,000. The grand total of the silver product from the discovery of America to the present time is estimated at the sum of 1,430,000,000.

AUSTRALIAN GOLD MINING.—The Magdala shaft at Pleasant Creek, Stawell, was down to 1702 ft. at the latest accounts from Melbourne. The solid mass of stone composing the upper part of the lode has been passed through, and below it a strong body of stone has been met with, which is highly charged with pyrites, and contains gold. The mining manager reports that there is good evidence of the existence of the junction of this lode with a vertical lode to the west of the shaft, and that he feels certain he will find more quartz before he reaches the footwall of the reef. No trial of the quartz has yet been made to any extent sufficient to show the value of the discovery of the company, as the management have determined not to crush until at least 200 or 300 tons can be operated on at once, so as to give good evidence of the quality of the stone. It will be some few weeks yet before such a trial can be made, and either from the fact of having to wait so long before any test is obtained as to the value of the quartz, or from a belief that the quartz is not so rich as was at first supposed, there has been a considerable reduction in the price of shares in the company. Soon after the striking of the reef the shares went up from 8s. 6d. each to 7l. 10s.—an unreasonable rise, when no proof of the stone had been made. They have since fallen to 2l. 10s. The North Cross Reef Company, whose ground adjoins the Magdala Company, at their monthly crushing in October, had the magnificent yield of 2834 ozs. of gold from 1698 tons of quartz, and the same company have now obtained such rich yields for so long a time that their mine has proved itself to be one of the richest ever opened in the world. Although the reef the Magdala Company have obtained is not the same as the North Cross yields are taken from that reef is supposed to exist in the Magdala claim at a depth of 800 ft. or 900 ft. from the surface, and efforts are being made to find it. The reef they have got is the one that has been worked to great advantage in another neighbouring claim, the Extended Cross Reef; and if it proves to be as rich as it is in that claim the mine will be exceedingly valuable.

RAPID BORING.—A remarkable example of rapidity in deep boring has recently been furnished by the first bore hole put down by a company formed to search for coal in Switzerland. A depth of 1422 ft. was reached in two months, including the re-boring of the upper 640 ft. from 3½ to 7 in. in diameter. The work was done including all delays, at a rate over 1000 ft. per month, the highest speed being nearly 77 ft. in 24 hours. The results obtained were negative, the section showing about 1200 ft. of Permian strata resting upon old crystalline rocks; but the trial is only the first of a series.—*Athenæum*.

COMPRESSED AIR LOCOMOTIVES.—An improved compressed air locomotive has been invented by Mr. LEON RIBOURT, of Altdorf, Switzerland. The locomotive is like one of ordinary construction, having, instead of a boiler, a large and strong reservoir, which is charged with compressed air, and having large cylinders, so as to work with moderate pressure under that of the partly exhausted reservoir. Between the main reservoir and the cylinders are placed the regulating apparatus and a small subsidiary reservoir in the course of the pipe from the regulator to the cylinders. The regulator consists of two pistons connected together to work in a cylinder, open at one end to the air, and at the other end communicating with the subsidiary reservoir, while the middle space, between the two pistons, communicates with the main reservoir, and also by side holes with the subsidiary reservoir, these holes being governed by a slide attached to the pistons. The pistons are pressed inward by the atmosphere and by an adjustable spring, and outward by the fluid at the working pressure in the subsidiary reservoir, and according as the latter pressure exceeds or falls short of the atmospheric pressure, aided by this spring, so the slide covers or uncovers more or less the holes in the cylinder; and thus, notwithstanding considerable variation of pressure in the main reservoir, the working pressure in the subsidiary reservoir is maintained constant, or nearly so, and within limits may be varied by altering by an adjusting screw the force of the spring.

SAFETY-VALVES.—The safety-valves invented by Mr. ALEX. WILSON, of Emerald Hill, Victoria, Australia, may be described as double valves, each with a small upper valve loaded with a direct weight to the

required pressure, and a lower valve loaded with the pressure of the steam in the boiler. This latter feature of a steam-loaded valve is the essential peculiarity of the invention.

MINING AND STOCK EXCHANGE NEWS OF THE WEEK.

Messrs. F. W. MANSELL and Co. (Sworn Stock and Share Brokers), Pinner's Hall, Old Broad-street, write to us as follows:—

EIGHTEEN HUNDRED AND SEVENTY-FIVE will be recorded in the pages of mining history as a year not without its measure of success; yet there have been events that should act as danger-bells in the future. Probably fewer mines have been introduced—fewer still that merit investors' attention. Mining, being pre-eminently speculative, necessarily has its blanks; it also has its prizes, in value far transcending the realisations of any other enterprise. Legitimate failures in resultant effects are harmless contrasted with the injury of schemes whose only purpose is the aggrandisement of vendors and promoters; shareholders seldom unreasonably complain if the failed mine has been honestly wrought, and the whole venture a fair one; the opposite it is that engenders anger, often not without ample justification. However, as a period of recovery from a collapse consequent upon a former wild inflation, the year just closed has been neither unfruitful in its whole lessons nor discouraging in its profitable results, while the outlook for 1876 in several material respects is much more favourable than, at least, since 1865-6; if there be anything in the "theory of decades," that is only an addition to the many more solid grounds why the year now entered upon is destined to prove greatly more prosperous than any for a long time past.

In our selection at the beginning of 1875, among foreign mines, we advised St. John del Rey at under 260. We then remarked thus:—

"Mining shares as investments have special characteristics, differing in a marked degree from those attaching to any other class. The very nature of these undertakings plainly indicates that they are investments of a speculative character; in no other class, indeed, is this feature so dominant as in mining shares. As long as a mine is worked there always remains some hope and some chance that profits may be realised. The return is necessarily subject to wide fluctuations. When prices occur they are very profitable, yielding larger profits than from any other class of investments. The recollection of the great prizes has a strong influence in causing investors to take shares in new mines. The unsuccessful results of some are more than compensated for by the great profits derived from the prizes. St. John del Rey from 1857 to 1874 paid no dividend is upon its shares; previous to the year 1867 it had reached a high position as a successful undertaking, when an extraordinary accident suddenly threw it back to a non-dividend-paying state. For seven years there was much uphill work, but the patience of the shareholders is at length rewarded, and they have much reason for congratulation. During the long dividend-less interval the shareholders never lost confidence in the mine, and believed sooner or later that former prosperity must return. The capital is small, and the profits have to be divided over a proportionately small area. These shares, as a sound investment, should be purchased."

Since the above appeared (only twelve months since) the stock has changed hands at 420l., the dividends now being 50 per cent. per annum. Again, we advised Cape Copper at 29l., and in doing so thus remarked:—

"These shares receive an interest equal to between 13 and 14 per cent. per annum, the dividend being 1l. per share quarterly. The extraordinary mines possessed by this company are opening up greater and richer deposits of copper as development progresses; the means and facilities of extraction and transport are now upon a scale ensuring the return of resources economically and profitably. For a steady and progressive investment these shares well deserve attention, to say nothing of the great probability of an immediate advance in price."

Since then Cape Copper has continued to pay its regular quarterly dividends of 1l. per share, and the quotation is 38l., equal to an advance upon the year of something like 10l. We also advised Richmond Consolidated shares, which were then standing at something like 6l.; the quotation has since been 16l. Referring to this mine at the time, we wrote that:—

"Not a few of our clients are able to bear testimony to our persistency in advocating the purchase of these shares long before the first dividend had been paid, and when many who now hold a considerable interest in the company had misgivings as to the soundness of our advice. We are free to confess that the mine has opened out more rapidly than we had originally anticipated—indeed, no one practically connected with the property even for one moment dreamt that it could have possibly uncovered such deposits of wealth in a period of time so comparatively short. During 1875 these shares are likely to command higher prices."

Eberhardt shares we also recommended at 4½l., and the price has since been 9l. BLUE TENT CONSOLIDATED HYDRAULIC GOLD forms the only exception; these shares have not improved. Why? Because the completion of the 30-miles canal has been a work of greater difficulty, and occupied more time, than calculated upon; this important work has at length been successfully finished, and gold-washing actively commenced. Henceforward such results will be realised as to establish Blue Tent the most profitable gold-washing enterprise in California. Our recommendations of home mines at the beginning of 1875 was limited to one—Van; at the time the price was 22l., it is now 32l.; the dividends are increasing, and mine improving. In silence must we pass over the many so-called mines we regarded unworthy attention; a hornet's nest, virulent and malignant, would be raised were we even to name but one instance in which our unfavourable opinion has been unhappily confirmed—let it be sufficient for those who took our hint, and profited thereby.

At the beginning of 1876 it would be difficult with safety to vary the selection we published at the commencement of 1875, although in each case (excepting Blue Tent) a sensible advance in market value has taken place. But two prominent enterprises must now be added to our list—Argentine Gold and Pateley Bridge Lead Mines and Smelting Company. Upon previous occasions have these two mines been so fully described that we need now only repeat our firm conviction that during 1876 the Argentine Gold Company will certainly take the lead among foreign mines, and that prominent among our most successful home lead properties will rank Pateley Bridge Lead Mines. The bases upon which we have founded our favourable opinion have been previously set forth—"He who runs may read."

BLUE TENT CONSOLIDATED HYDRAULIC (Gold).—Those who have followed our remarks upon this extensive property will be prepared to find it spoken of in the most favourable terms by the leading hydraulic mining authority in California—Prof. Price, who, having satisfied himself as to the great value of the mines, consented to accept their personal management. After some months' experience of the property, Prof. Price has thus written:—

"Of the real value of your property I have not the slightest doubt or misgiving, situated as it is on the auriferous gravel belt, and every season is bringing it to a much better condition, so as to be attacked by the water. I see no reason why, by proper working and due regard to economy, this property should not pay well at no very distant future. . . . For the first time the company is in a position of self dependence as regards the successful working of its mines, possessing all the elements necessary for profitable hydraulic mining—an extensive tract of auriferous gravel, situated on the gravel belt, and of undoubted richness, a good and permanent outlet for expeditious work, and the disposition of tailings; a large and well-constructed ditch, affording a large volume of water for at least seven months of the year. All that now remains to be desired is the supply be further increased until there is a perennial flow, which can be accomplished by improving the company's lakes, and constructing reservoirs at suitable places; this work can be done gradually, and from time to time."

The above statement is a further confirmation of the opinion we have often expressed of the Blue Tent property—that it will prove the most successful hydraulic mining enterprise in California. Advantage should at once be taken of the temporary decline in the market price of the shares.

ARGENTINE: ST. JOHN DEL REY (Gold).—It appears necessary to again state the leading reasons inducing the opinion that the consolidation of the mines forming the property of the Argentine Company will be eventually equally profitable with St. John del Rey. The reasons are plain:—The geological formations are identical, and the lodes constitutionally similar. There are also other special reasons giving Argentine an important advantage over St. John del Rey.—1. The greater richness of the veins (2 ozs. of gold per ton as against a little over 1 oz.).—2. Less cost in working (40 to 50 fathoms deep as against 300 fathoms).—3. Smaller capital upon which to pay dividends (60,000l. as against 253,000l.). Evidence beyond this cannot be demanded in verification of the emphatic statement of the special commissioner—"That the Argentine mines are no speculation, and require only to be put in thorough working order, and systematically laid out and energetically worked, to make them pay rich and lasting profits."

SAN PEDRO COPPER (Chili).—This company has a capital of 75,000l. in debentures and shares (fully paid). It has emerged from some temporary financial difficulties, and now bids fair to take a prominent position among *bona fide* undertakings. The machinery and mines are in full working order, and the reports for the past

two months have been entirely satisfactory. Shares, which were formerly at 7l. each (54. prem.), seem likely again to command a higher value.

ROMAN GRAVELS (Lead).—Those of our clients who have purchased these shares upon our recommendation will be pleased to learn that a new lease for 25 years, dated from January, 1876, has been signed. The new shaft awaits the erection of the necessary machinery, which will be erected forthwith, this will enable the company to economise its workings, and greatly increase its returns. Meanwhile, the lower levels are opening up fine courses of ore, with every indication of increasing the remunerative stability of the property. Shareholders have already received dividends amounting to more than 13,000l. upon a capital of 90,000l.

PATELEY LEAD MINES AND SMELTING COMPANY.—Satisfactory reports continue to be received from these mines—private ones more than confirm the official. Each point of operation fully maintains its value, and upon some of the veins improvements have taken place. The "New Discovery" is now worth 1 ton of lead per fathom; the Gulf vein, which is 8 ft. to 9 ft. wide, is producing 25 cwt. of lead per fathom; Pringap vein, 5 ft. wide, is yielding "fine stones of ore." Another pioneer point of operation is Gillfield level. Here satisfactory progress is being made, and the manager writes:—"I hope shortly to have something encouraging in this part of the mines." The machinery is working well, surface operations progressing favourably, and furnaces in full employment.

RICHMOND CONSOLIDATED (Silver).—The returns this week are disappointing, not so much from the lessened amount (\$38,000 against \$46,000 last week), but because no reason has been assigned for the falling off. The statement of the manager, made a few weeks since, that the returns would be "increased forthwith," is still unconfirmed.

VAN (Lead).—We have to congratulate those of our clients who purchased shares in February last, when we wrote as follows:—

"We can recollect when, upon the expectation only of cutting this lode at a depth of 45 fms., the shares advanced to 80l.; since then the mine has continued to open out in a manner unequalled by any other property in the United Kingdom, gradually adding to its already enormous 'reserves' of ore, and continued to pay satisfactory quarterly dividends, and yet now that the lode has been cut, and cut rich at just double the depth—90 fms.—the shares can be purchased at 23l. While this depression continues, which has been brought about by exceptional and temporary circumstances, without any reference to the mine itself, our clients should avail themselves of the opportunity to purchase while it is afforded. Dividends are assured during the lifetime of at least the present shareholders, while a substantial rise in market value may reasonably be expected."

The shares have improved to 33l.; the quarterly dividend has been increased to 15s. per share; upwards of 40,000l. has been divided in profits during the year; and some of the most valuable improvements made for a long time past have just been announced—viz., in the 75 west the lode is now worth 100l. per cubic fathom, and in the 95 west the lode is of the same value. The most important discovery, however, is in rich stones of lead coming into the shaft at a depth of 105 fms., showing that at this increased depth the lode has increased in size by at least 7 fms. The value of this discovery it is impossible to over-estimate.

HYDRAULIC GOLD MINING.—Should the nature of the ground admit the sinking of a shaft or incline it is advisable to do so; even after the tunnel has been completed, water introduced, and everything ready for hydraulic operations the opening of the mine will have to be done either by shaft or incline. It is, however, very often, and particularly in those deep gravel deposits which were never submitted to drainage, a costly and difficult job to sink a shaft or incline, by reason of the quicksand and loose gravel. The miner must, therefore, consult the extent of his means before he ventures upon hazardous operations. The character of these ancient deposits, generally speaking, is the same. Though they may differ in the hardness and compactness of the gravel, or may have been disturbed by local influences, still there is a prototype, the description of which may fairly apply to all. The oldest gravel deposit found in these ancient channels is the deposit known under the name of blue lead. This deposit is always found deepest in the channel and nearest to the bed-rock; it is composed of boulders of serpentine rock, talcose slate, and, in fact, all other rocks belonging to the slate family; besides this, of quartz in boulders, gravel, and sand, with an admixture of clay, the presence of the latter being always considered a favourable sign of richness. The whole mass is of a colour varying from blackish green to indigo blue. The quartz, though originally of pure white, is tinged blue, and neither washing nor exposure will discolour it. Very often a deposit of huge boulders, rather rough and angular and intermixed with only a little gravel, is found near the rim-rock—a mass resembling very much a moraine, and of no value for mining purposes. This deposit, however, will slope down towards the centre or depth of the channel or basin, and the regular blue lead will appear on the top of this moraine, sometimes only a few inches in thickness, but gaining steadily in size in the same ratio as the moraine diminishes, till finally the bed-rock is reached by the blue lead, which may have gained a thickness of 40 ft. or more. This blue lead is found in deposits rising from a few inches to over 100 ft. in thickness, and is generally considered the richest and most reliable gold-bearing deposit in California. Though tightly packed, it can be easily removed by the pick, and affords, therefore, under proper circumstances, an excellent material for hydraulic operations.

STOCK EXCHANGE GENERAL MARKETS.—In low-priced securities, to which we directed attention last week, speculation is encouraged because instances of rapid, and for several reasons remarkable, rises in price have occasionally been recorded in past experience amongst them, and the turning up of one prize now and then is sufficient to make these low-priced securities worth attention. In addition to the chances of a great rise in market value, brought about by some decided improvement in the position of the investment, or sometimes by a speculative working of the market, called a "rig," there is also a chance of a smaller but far less uncertain profit accruing on these stocks from the almost incessant fluctuations in prices. Losses may arise from these latter movements as well as profits, hence caution and experience are necessary to make a judicious selection.

FOREIGN MINING AND METALLURGY.

The experience of the Creusot Iron Works Company in 1874-5 illustrates very clearly the difficulties and depression against which French metallurgy has for some time past been struggling. The dividend of the company for 1874-5 has been fixed at 2l. per share, as compared with 2l. 16s. per share paid for 1873-4, and even the reduced dividend was a larger one than the council of administration altogether approved of. Low competitive rates have occasioned the present troubles of Creusot. Nothing has occurred during the last few days to modify the aspect of the French iron trade. A considerable extent of new railway has been conceded in France, and a good many new lines are in actual course of construction; but on the other hand, the continually increased use of steel on railways checks the demand for iron rails. At present it is difficult to predict the period when the existing depression in the iron trade will terminate. The Levant du Fleuve Collieries Company will pay on the 3rd proximo statutory interest for 1875 at the rate of 2l. per share. The Sars-Longchamps and Bouvy Collieries Company will pay on the 3rd proximo statutory interest for 1875 at the rate of 2l. per share. Other Belgian coal mining companies will also pay interest on the 3rd proximo as follows:—Charleroi United Collieries Company, 1l. per share; Produits Collieries Company, 2l. per share; and Monceau-Fontaine and Martinet Company, 2l. per share.

Business in copper has been comparatively restricted at Paris, and quotations have been almost nominal. Chilean bars has been quoted at 85l. 4s.; ordinary descriptions, 84l.; ditto, in ingots, 83l.; English tough coke, 86l.; and pure Cornish minerals, 84l. per ton. Copper has been pretty well maintained at Marseilles. Transactions in copper have presented no great importance upon the German markets; prices have experienced comparatively little change. Banca tin, delivered at Havre or Paris, has been quoted at Paris at 90l.; Straits ditto, 87l.; and English, delivered at Havre or Rouen, 86l. per ton. The German tin markets have been rather firm; this remark has especially applied to Berlin. Lead has not varied upon the Paris market. French lead, delivered at Paris, has made 22l. 12s. 1

Spanish ditto, delivered at Havre, 22s. 8s.; English ditto, 22l. 8s.; and Belgian and German, delivered at Paris, 22l. 16s. Lead quotations have been firmly maintained in Germany; no large transactions have been reported. There has been little business passing in zinc at Paris, but prices have been pretty well sustained; Silesian zinc, delivered at Havre, has been quoted at 26l. 16s. per ton. At Marseilles zinc has experienced little change; rolled Vieille Montagne continues to be quoted at 34l. per ton. There has been little doing in zinc in Germany, in consequence of the scantiness of stocks.

The frost having broken up in Belgium, deliveries of coal by water have resumed their ordinary course in that country, and stocks which have accumulated at the pits' mouths are rather rapidly disappearing. There are complaints of an inadequate supply of railway trucks. The coal trade has remained animated in the various Belgian coal basins; a strike still continues in the Centre, and there does not appear to be any immediate prospect of a termination of the difficulty; the men on strike are, however, very quiet. The La Haye Colliery Company has just constructed a tunnel of some little importance for the delivery of the coal which will soon be extracted from a new pit which is being sunk in the Saint-Gilles field. The tunnel is of sufficient width to admit of the passage through it of two sets of trucks. The French coal trade remains in much the same state, and there appears to be little probability that the opening of the New Year will witness any material increase of animation. Upon the whole, the French coal trade has not done so badly during 1875; wages have fallen, and the prices obtained by colliery proprietors have been fairly remunerative. The past year has, however, witnessed a lamentable number of accidents in French coal mines. The coal trade of the basin of the Sarre is stated to have slightly improved during the last few days.

The French Railway Plant Company has announced an interim dividend for 1875-6 at the rate of 12s. per share. Measures are being matured for the improvement of the port of Genoa. The object is to make Genoa one of the most important commercial ports in the Mediterranean. The engineer who has been consulted is Signor Amthun; he suggests the construction of a very extensive breakwater, as well as sundry new quays, warehouses, &c. The Duc de Galliera has just made a large donation to the authorities of Genoa. The generous donor stipulates that his munificent gift shall be applied—at any rate in part—to an extension of the port of Genoa. Any movement likely to add to the commercial importance of Italy can scarcely fail to be of some interest to the coal and iron trades.

Matters can scarcely be said to have improved in the Belgian iron trade; any change which has occurred has been in adverse direction rather than otherwise. Notwithstanding a reduction in the production, and an acceptance by the works of very low selling prices, the winter does not present itself in at all an encouraging aspect, and the future is almost equally gloomy.

THE MINERAL RESOURCES OF TURKEY.

Surprise has sometimes been expressed that although the mineral resources of Turkey are acknowledged to be considerable, so little has been done to develop them, but the address recently presented to the Grand Vizier by Turkish mine adventurers, and to which brief reference was made in last week's Journal, will explain why Turkish mining enterprises are to be so carefully avoided. The address stated that the deputation, being interested in the mining industry of the country, submitted suggestions for reforms which seem necessary to ensure the creation of that industry in Turkey, which, combined with agriculture and commerce, will be the means of raising Turkey to the level of prosperity enjoyed by the countries in which that industry is flourishing. They truly point out that whilst the mine adventurers' chances of success are more or less doubtful their enterprise will always be advantageous to the country, and, consequently, to the Government, and that the benefit accruing to the latter begins with the first stroke of the pickaxe, and continues throughout the duration of their undertaking, for it is indisputable that all capital engaged in mining enterprise is so much gained by the country, and is from the first subject to the fiscal laws of the Government, whatever may be, and irrespective of, the results obtained by the concessionaires. And they add that it is no less certain that the promoters of industry are the best supporters of all Governments, because they create, so to say, labour and contentment, diffuse wealth, and thus render the population conservative, and, consequently, enemies of disorder.

The mere statement of reforms required will suffice to satisfy the miners of other countries that it will be long before they need fear the competition of Turkish mines. The principal obstacles to the development of mining industry in Turkey are described as having their origin in the difficulties raised by the Mining Department to the sale or transfer of concessions and in the refusal to recognise and register contracts and mortgages; in the vagueness of certain articles of the mining law; in the conditions, wholly unjustified by the law, which the department in question imposes at the last hour before delivering a concession, under the name of *sharname* (specifications) and *moukavilname* (convention); in the absence of a technical council of mines whose decisions should constitute an unimpeachable title in the want of means of communication and transport; and lastly, though not least important, in the insecurity of life and property. It appears that the mining administration has refused to recognise the decrees of competent courts, the communications of the *idjra djiemiet*, confirming sales and concessions, and the *takrirs* (verbal declarations) of the sellers made before that administration, and it has even disregarded orders emanating from the Council of State, pretending, in flagrant contradiction of Art. 7, that a mine was to be considered as "mulk" property, and that, therefore, a verbal declaration of the seller, or, failing that, a special order from the Grand Vizier, was necessary for the execution of a transfer. And it is very fairly asked what capitalist would interest himself in a mine with the prospect of an interminable lawsuit for forcing a dishonest seller to give his *takrir*? Especially as some articles of this law are so obscure and so elastic, particularly in the Turkish text, that interminable disputes arise from the interpretations given by the Administration of Mines—disputes which are usually referred to the Council of State, where their settlement is kept indefinitely in abeyance.

Attention is specially directed to the fact that the Administration of Mines interprets certain articles of the law as meaning that the Government has a right to appropriate any mine, whatever its value, on indemnifying the discoverer for the expenses which he shall prove that he has made—a view which scares capitalists and discourages mining research. Again, the vagueness of the law leads to an infinite number of regulations and circulars being dispatched backwards and forwards between the central authorities and those of the provinces, and innumerable annoying formalities have to be fulfilled successively in the villages, cazas, caimakamliks, mutessarifliks, in the vilayets, and in the capital. And these, too, have to be repeated on taking out prospecting license, on registering discovery of mine, on dispatch of official samples, on the exportation of mineral extracted whilst prospecting, on the drawing up of plans, on the verification of boundaries, and on the posting of notices. Then references have to be made from one ministry to another—from the Council of State to the Ministry of War, Ministry of Marine, sometimes to the Grand Master of Artillery, Public Works Department, and even to the Polytechnic School. Again, the notices have to be published in every caza of the vilayet in which the mine is situated, so that for a mine at the Dardanelles it is necessary to put up notices in every island of the Archipelago as far as Rhodes, and to wait until each of these islands have reported that there is no opposition—a process which often occupies over a year instead of the two months prescribed by law.

It would appear that the concessions themselves are of little value when obtained, owing to the conditions attached to them, but the granting is also sufficiently objectionable; it must be proved that the mine can be profitably worked, that its working will not be prejudicial to any factories or other mines in the neighbourhood, that the best method of working the mine has been determined, and that the applicant commands sufficient means and skill. Here the Government offers guarantees which it cannot fulfil, and undertakes

responsibilities which are altogether unnecessary. The deputation pointed out that it is urgent that the Administration of Mines should be made to understand that in granting a concession it accords a privilege confined, indeed, within certain limits, but which entails upon the concessionary the obligation to risk a large capital in an undertaking of the most uncertain kind for him, though offering direct and immediate profit to the country. The suggestions made are that reforms should be introduced giving security of title, promptitude in obtaining them, suppression of needless formalities and guarantees, the creation of a technical and practical council of mines, the recognition of the principle of indemnity for mining claims based on the value of the mine, and the renunciation by the Government of all detrimental competition with concessionaries. There can be no doubt that if these suggestions were adopted the encouragement for mining in Turkey would be much increased.

MINING IN FRANCE.

A great deal of interesting information about mining in France is contained in M. Caillaux's "Mémoires sur les Mines métalliques de la France, 1872," and "Tableau général et Description des Mines métalliques et des Combustibles minéraux de la France, 1875." The Gauls, Caesar tells us, were clever miners; the mediæval French succeeded very well in mining; but, as soon as France adopted the system of over-government, from which in all her revolutions she has never been able to free herself, the mines began to languish. The Grand Master and Administrative Council (both dated from Henry II's reign) were too much for them. Thus mining had flourished in the Vosges till the mining districts were annexed by Louis XIV.; it had flourished in Franche-Comté under the Spaniards, but gradually died out when Franche-Comté became French. In the department of the Gard one can still trace Jacques Cœur's workings; and the mines of the Limousin and Auvergne, and above all of Rouergue (the department of Aveyron), paid well till the religious wars, at the close of which all France came under the yoke of absolutism. The French mines of copper, tin, calamine, &c., are by no means worked out, says M. Caillaux; vigour and improvements in working are alone needed to make them thrive as of old. The Breton tin mines, for instance (to say nothing of those in Limousin, so famous in Celtic times), would, he thinks, succeed as well as those of Cornwall if proper methods of stamping and washing were employed. Unless they were to succeed better than most of the Cornish mines are doing just now, it would hardly be worth while to introduce the circular washing tables and other appliances which the Cornish managers brought in not many years ago from Russia. Tin will never pay again, unless either the Australian supply ceases, or a great deal of the work now done by the miner can be done by machinery. Cornwall and Brittany are inhabited by much the same race; that the former has so greatly distanced the latter in mining is because in Cornwall private enterprise has been free, in Brittany it has been woefully trammelled; and, again, as a consequence of this freedom, English capital has always been pouring into Cornwall, while till the other day Brittany was cut off from the rest of France.

We do not think, with all deference to M. Caillaux's special knowledge, that the old French duchy will ever be able to make up its leeway. But, if a great deal of French mining is almost dead, iron-working is more active than ever, though, owing partly to the subdivision of property, which destroyed the connection between the signorial forests and the blast-furnaces, and partly to the use of coal for smelting, the mode of production is completely changed. The little smelting-houses which abounded wherever rich ore was to be found have been to a great extent killed out as completely as in the old "blast-houses" on the Cornish moors; while great works like those at Creuzot have vastly increased. These are mostly situated on coal fields, and other ores, if still worked, are taken to them, just as the Northamptonshire iron-ore is taken to the Black Country. In 1835 all the French ironworks employed 22,600 horse power; in 1869 they employed 76,300, of which steam produced nearly 48,000. M. Caillaux notes with much pleasure a reaction which has quite lately set in in Savoy and other well-wooded districts in favour of small works for making, not iron, but steel. He remarks that while in the last forty years the production of cast and wrought iron in France has increased fivefold, that of steel has increased twentyfold.

The yield of coal from French mines is 17½ millions of tons—twenty times what it was 60 years ago. It has doubled in 12½ years; while that of England, says M. Caillaux, takes 15 years, and that of Belgium 20 years to double. In this way the proportion of imported coal has been reduced from two-fifths to a third. A greater output, combined with fresh "concessions," would (our author thinks) permanently lessen even this reduced proportion. The French coal fields are larger than many of us think; that which belongs to the Belgian field has been traced, under more recent formations, all the way from Lillers in the Pas de Calais to Conde in Calvados. M. Caillaux thinks that very generally the superincumbent strata are not too thick to be pierced to good purpose. No mine in this field exceeds 300 metres; this depth might, he says, be doubled with advantage. With their coal and iron, then, the French may fairly be satisfied; they had the steam-hammer at Creuzot before we in England had begun to use it, and M. Schneider, we know, built a good many locomotives for English railways. The other mines seem, as we said, choked with officialism. M. Caillaux hints that it might be as well to try a change, and to let the ownership of the metalliferous mines go along with that of the soil, reserving the present system for the working of coal mines. He thinks that France has a great future before her as a mining country, if only she can set to work untrammelled. But surely that is of all things the one which it is hopeless to expect.

ECHOES FROM THE MINING MARKET.

The closing days of the year have not been marked by any particular signs of weakness in mining shares. Prices, on the contrary, exhibit firmness, so that the markets would at once respond to any favourable influences that might arise. But little can be said, however, in favour of tin. This metal and iron are the two least encouraging of all the various departments. Lead, on the other hand, is good, and mines of this metal may be said to be most in favour; those possessing reasonable features of encouragement, will commence the new year under good auspices, as there has been for the last three or four years a decided tendency apparent on the part of investors to pay particular attention to lead—a tendency which has steadily increased as the closing months have passed away, and which we think only requires the renewed activity of a new year to increase in a much greater degree.

The shares most susceptible of a substantial advance are Roman Gravel, Tankerville, West Tankerville, Pennerley, and Plympton. The last is likely in particular to do well now that it possesses steam-power, as the influence of the weather, which at times have caused entire cessation of work, have been brought to a minimum, whilst, as far as the development of the property is concerned, it is cheering to note that the lode in the bottom is of a kindly and improving character. We shall watch the progress of this mine with much interest, as we believe it has the elements of success within it. Another mine which would undoubtedly do well if the efforts of the liquidator to procure fresh capital could only be successful is Willoughby. Starting under good auspices some four or five years ago its capital was eventually found insufficient to carry it on to a successful issue, and the shareholders (in consequence of the difficulty found in raising more money) were compelled to suffer their property to drift into voluntary liquidation. Since then the liquidator has not only made the mine pay its way, but has actually realised profits which have been of some assistance in reducing the old liabilities (these did not amount to more than 8000, and are not 8000, at present), but of course no further development of the property can take place without fresh capital. If 20000, were raised not only could every liability be cleared off, but the balance, it is calculated, would bring the mine into a permanent dividend state. With good management, indeed, we may say success would be almost assured, and that a saying a good deal in speaking of a mine. We trust that the liquidator will soon be able to announce to the shareholders that his difficulties are over, and that the new year will see the resurrection of Willoughby. It is one of the few companies in which those who originally promoted it staked their thousands in hard cash upon its success or failure.

The last days of 1875 have witnessed a radical change in Greenville Mine. The recent alteration in the secretaryship is fresh in recollection, but on Thursday this alteration was added to by the dismissal of the agent and the appointment of a Captain Dodge, as agent-in-chief. A call of 15s. per share was also made—rather a heavy amount. We think, however, that it is always better in a cost book mine to face liability at once, and therefore but little can really be said against this call, although doubtless it will press hardly upon some of the old shareholders. The meeting was not a very harmonious one, of course. Those hostile to the late secretary have so strengthened their hands by purchases of shares that their ability to carry their views was a foregone conclusion, and, as the late secretary has parted

with the greater part of his interest in the mine, there will, we presume, be no further opposition offered to the change of offices.

The difficulties of the Crenver and Abraham Mines, it appears, are not over yet. The liquidators have announced that the entire property has been offered for sale as a going concern without the reserve price (fixed to cover liabilities) being reached. If the machinery has to be sold piecemeal it will not realise anything like the amount of the mortgage; so, as the liquidators tersely remarks—"It is obvious that the shareholders' capital is entirely lost." Capt. Tregay has made a special report upon the property. It is considered so encouraging that the guarantors of the mortgage to Messrs. Harvey have offered to find a large part of the capital required to purchase the property, and also to settle with Messrs. Harvey if the balance which is absolutely necessary for the development can be obtained elsewhere. The guarantors have of late found the means to carry on the mine, hoping that the output and price would continue to improve, but although the quantity of ore has increased, the costs cannot be entirely met and profits made without further development. Negotiations are now going on by which it is hoped the balance required will be raised, and the property will then be in the hands of a few persons with such a reduced capital that "a small profit will give handsome dividends." The property will now be sold for the best price that can be got for it, and the guarantors state that they are willing to allow any of the old shareholders who may wish to do so to join in the purchase. Those who have already subscribed, in answer to the liquidators' appeal last June, are requested to signify their assent to the application of their money to the proposed arrangement, and those who have not subscribed are now informed that this is the last opportunity they have of doing so. Last week 385 tons of copper ore were sold for 20000, the ore is yielding 2½ tons per fathom, and two ends 4½ tons. There is no particular change to notice in the other points of operation.

Rock-boring is exciting a good deal of interest in Cornwall, and another prize has been announced to encourage the men to devote their energy in solving the problem of success. We have not heard much of late as to the progress at Dolcoath, but at Wheal Agar recently 3 ft. were driven in two days. The machine, however, is not regularly at work, as improvements are being made in the borer carriage, which it has been found that greater safety and economy would be gained if a special gear was erected to work the machine. Whenever a breakage occurs in the shaft, necessitating the stoppage of the engine, to which at present the borer is connected, a corresponding delay takes place in boring—a difficulty which greatly curtails its practical utility. Success, however, will doubtless sooner or later crown these efforts, and we hope the day is not far distant when as much progress will be made in Cornwall by the aid of the machine as in Wales, where at Minera the rate is, we believe, 9 ft. per week.

JAMES H. CROFTS.

Meetings of Public Companies.

LLANRWST LEAD MINING COMPANY.

The second annual meeting of shareholders was held at the offices of the company, Gracechurch-street, on Thursday.

After the notice convening the meeting was read by Mr. YEATES (the secretary), he also read the directors' report as follows:—

The directors have much pleasure in submitting the accompanying report of Capt. Knapp, showing the progress made in the development of your property during the past 12 months. It will be seen therefrom that the mine has considerably improved at all points of operation, while the prospects of further important discoveries being made as development progresses and depth is attained on the several lodes (already proved to be so prolific in yield of ore at the present shallow depths) is, in the opinion of your directors, beyond doubt. The total value of the property, as surveyed ore laid open below and raised to surface is 27,5000, and when it is borne in mind that the company's actual outlay in developing the mine with such satisfactory results has been under 40000, you cannot have any doubt that the money has been economically and profitably expended. It is to be regretted that progress has been retarded for want of the necessary machinery to prepare the ore for market, and your directors feel once more constrained to ask you, one and all, to come forward and aid them with the means for bringing about the payment of dividends. You possess a valuable property, with large results of ore waiting only for the requisite machinery to render it marketable, and if each shareholder were to take a *pro rata* number of the company's unallotted shares ample means would be provided to meet these requirements. Mr. Benetofski's having ceased to be a member of the board, the directors, in conformity with clause 73 of the Articles of Association, appointed Major de Winton to a seat at the board, subject to your confirmation, and in accordance with clause 75 of the said Articles of Association, Captain Gilbert and Mr. B. C. Holden retire by rotation, offering themselves for re-election.

Captain ROBERT KNAPP (the manager) read his report, giving a lucid account of the mine, as follows:—

Dec. 27.—In my report on the mine on this occasion I shall begin by informing you of the amount of work done during the past year, and then go on to describe, as clearly as I may be able, the nature, condition, and future prospects of the mine, as at present proved and indicated by the developed value of the property. The number of persons employed during the period referred to was 19, of these 12 were miners engaged underground in exploratory operations alone; the remaining seven include smith, carpenter, kiln-fitter, lander, and others miscellaneous employed at the surface. The length of ground laid open during the year has been 75 fms. 2 ft. 2 in.; on lodes and cross cuts, 23 fms. 3 ft. 2 in.; shafts sunk, 28 fms. 2 ft. 6 in.; making together, 125 fms. 2 ft. 2 in. In prosecuting this work 70 tons of lead have been broken and brought to surface, and, according to the value of the ore at present proved, which is considerably lower than the value to the reserves. Notwithstanding the great extent of ore ground laid open the prospects beyond are still exceedingly good, both lengthwise and in depth, especially in the latter direction, as our deepest level and the lower parts thereof contain the richest ground there is in the mine. Sections of the lode in the adit for 4 or 7 fathoms in length are worth 500 to 600, per fathom, and whilst we have now 140 fathoms in length of ore ground laid open—120 fms. at the adit, and 20 fms. in the 10, above adit, in advance of the adit end—there is but little of the whole which will not probably pay for working, whilst considerable lengths will yield from 1 to 2 tons per fathom. The present adit end has a depth of 27 fathoms from surface, but from that point the hill will soon begin to rise rapidly to an additional height of 15 fathoms, from which the depth of the adit will be at least 40 fathoms. The lode in the adit, east of Prospect shaft, is 4½ ft. wide, and will produce 2 tons lead per fathom, which is about the average value of the last 20 fms. driven in this level east of the great cross cut, and wholly in virgin ground. In the 10, above adit, a winze is being sunk about 5 fms. in advance of the adit end, now down 5½ fathoms, in which the lode is 3½ ft. wide, and will produce 1½ tons to a fathom. The lode in this winze is gradually improving as it gets deeper. The lode in the 10, east of Prospect shaft, is 2½ ft. wide, and will produce ½ ton of lead per fathom. We expect an improvement here shortly, as we are getting near its intersection with the great Red lode, concerning which tradition speaks in the most favourable terms. This lode is a large north and south lode, which has yielded in one place near the surface a large quantity of ore, but it has not yet been seen anywhere below these surface workings, and these are now in a too dilapidated condition to admit of being examined without considerable expense. We have refrained from making any special trial in this lode, as we well know that in prosecuting developments on our present main east and west lodes we should come in contact with it, and at depths more likely to prove its character and value than even an extended superficial trial would afford. The cross-cut in the 10 has been driven 13 fathoms south of Prospect shaft towards the main lode, and about 7 ft. past its perpendicular in the adit, and have only now to drive the remainder of the difference its declination will give from that point up to this. I think we should have intersected this lode before now if we had not removed the men last month to the 10 east of Prospect shaft, and if we had not been so busy with the air-shaft. This communication was made four weeks ago when the men at once returned to and resumed driving the cross-cut. From the above it will be seen that the prospects of the mine have in no way diminished since the last meeting, on the contrary, they have considerably improved, as, in addition to opening up a large extent of highly profitable ground, our future prospects are more visibly bright and assured than they were then.

In conclusion, I can only repeat what I have so many times previously stated, that in the Llanrwst you have a substantially good and profitable mine, and that I shall be too glad to be enabled at the earliest period possible to give you the most convincing evidence of this fact. We require only the ordinary mining appliances to furnish that proof. The ore we have already got, and now only need the means of making it marketable, and on such a scale as will leave a margin for handsome dividends, of which I am very certain.

After some little discussion, the CHAIRMAN moved the adoption of the report and accounts, which was seconded by Mr. VIVES, and carried unanimously.—It was then moved and seconded by shareholders that the remuneration for the auditor should remain as before.

It was then resolved that Mr. Sharp be re-elected auditor of the company.—Capt. A. S. Gilbert and Mr. B. J. C. Holden were re-elected directors of the company, and the appointment of Major de Winton, as a director, was confirmed.

Some questions having been put to Captain Knapp by Mr. VIVES, which were satisfactorily answered, Capt. KNAPP stated that he was prepared to meet anyone, mining engineer or otherwise, and would challenge them foot by foot throughout the drivages, backs, and bottoms, as regarded the statements in his report of the value of the discoveries made; and as soon as the appliances were provided to make the ore marketable the mine would be in a position, from its present development, to give a profit of 5000, per month, or 6000, per annum; and, as development went on, it would be considerably increased. The bottom level is the richest part of the mine, and he considered that we had one of the most valuable lead properties in the Principality.—Mr. EYDEAN stated that, whilst a number of lead mines in Wales, holding their meetings in October or November, have only brought their cost up to April, leaving several behind, costs not paid, Llanrwst stood pre-eminent in that respect, inasmuch as the entire working cost, merchants' bills, &c., were brought up to the end of November.

A good number of the shareholders were present, and all were perfectly satisfied with the present position and prospects of the company. After a vote of thanks to Capt. Knapp and the directors, the shareholders dispersed, from one of the most pleasant and satisfactory mining meetings that has taken place for a long time.

[For remainder of Meetings see to-day's Supplement.]

INCOMBUSTIBLE WOOD.—The invention of Mr. A. F. RICHARD, of Dix, France, relates to the preservation and incombustibility of wood by the aid of crystallised chloride of sodium in solution in water at between 6° and 24° by Beaumé's aerometer, and of a solution of chloride of sodium and alum at between 4° and 27°, either mixed in variable proportions or employed separately.

WRENCHES OR SPANNERS.—The invention of Mr. L. J. BAUDIN of Paris, relates to an improved construction and arrangement of extensible wrench or spanner whereby great strength and stability in the instrument, and a rapidity in effecting the adjustment of the jaws, are obtained; and it consists essentially in forming on the arm or body of the wrench or spanner an intermittent screw thread—that is to say, a thread having a series of breaks or interruptions, and in providing the movable jaw with a corresponding intermittent or interrupted screw thread, so arranged as to admit of the nut being turned in one direction in order to disengage the screw threads, and enable the movable jaw to be adjusted to the required distance by sliding along the arm or body of the wrench or spanner, or by the arm or body of the wrench

Mining Correspondence.

BRITISH MINES.

Registration of New Companies.

As compared with the old cementation process of producing steel, the leading question would appear to be whether it is preferable to use the iron in the form of bars or of powder, and this was supposed to have been decided in favour of bars 10 years since, when Chenot's process was attracting so much attention. That the mere substitution of a horizontal for a vertical retort produces the difference between failure and success will have to be proved before practical steel makers will accept the assertion as a fact, more especially as the vertical furnace of Chenot is that from which the best results would naturally be expected. But as a convenient method of converting natural iron sand, and even certain classes of ore, such as that of Marbella, there is no doubt that Mr. Larkin's method is valuable, and that being so it is unnecessary to raise the question of originality, since those who regard Chenot's and Larkin's inventions as identical have only to use the former instead of the latter. In the discussion which followed the reading of the paper Mr. Riley reminded the meeting that David Mushet was the first who made steel direct from ore; that the Ebbw Vale Company tried Reuton's

HOLLOWAY'S PILLS AND OINTMENT.—These remedies have maintained their position in the world's estimation from the fact that their preparation and manufacture have been the result of much anxious thought and a extreme care, so that in dealing with disease the most valuable qualities of the vegetable products of which they are composed are so refined and perfectly free of any assimilated in the blood, and are thus brought into contact with diseased products. The blood, therefore, is primarily acted on by these remedies, and it is from this fact that they are so extremely valuable in congestion of the liver, lungs, and kidneys; gout, rheumatism, sciatica and lumbago, and all neurologic complaints are capable of being greatly relieved by the judicious use of them.

34. In the 46 west end we have a very nice looking rock coming in the lode, which looks quite as well as we expected; present end worth from 10 to 15 cwt. of lead per fathom, with much water issuing therefrom. I feel sanguine we shall be on a good run of ore here soon. I intend to drive about 6 ft in the rock before taking down any more; I think by this to drain the lode, which will enable us to make greater dispatch in driving. There is back of said level is going up to communicate with the 34. We have not yet found the lode in the eastern part of the mine, and I think we are close on it. We have come upon some "shod stones," which shows some nice looking gossan.

GREEN HURTH.—Wm. Vipond, Dec. 24: No. 1 Cross Vein: There is no change in the end of this yet going south; it is poor and hard. The rise from new south end to surface is now quite dry at the top, it is still in place. Stope No. 2 below adit is yielding about the same quantity of ore that it has done for some time—4 tons to the fathom. Stope No. 2 above adit is not quite so good as it has been. We have got the top of limestone in this on the west side or up creek. Nothing new to report from cross cut going to No. 2 on the small east and west vein. Old Vein East: After going through some fathoms of soft ground in this, the men came upon solid limestone yesterday in the end; it almost looks as if a strong cross vein was coming in on the north side, but of course one cannot say yet. The fancy it may be another cross vein, and that it has been the cause of the softness and poverty we have had lately in this end.

HARWOOD.—Wm. Tallentire, Dec. 24: We are progressing very fairly with the driving of Herd-hill level; there is still a good deal of water percolating through the beds. We have begun the back part of this week to drive on the vein northward at the bottom of the limestone, and the vein there is about 2 feet wide, of rider, &c.

HINGTON DOWN.—J. Richards, Dec. 30: Bailey's engine shaft continues in regular course of sinking below the 150, and is fast approaching the required depth for another level.—Bailey's Shaft: In the 150 west and west of Cocking's winze, the lode continues of the same value, yielding 4 tons of ore, or 12½ per fathom. In the 150 west, and west of Rowe's winze, on the north part of the lode, the lode is 2 ft. wide, worth 5 tons of ore, or 16½ per fathom, and is very promising. In Rowe's winze, sinking below the 150 west, the lode for the length of winze (10 ft.) yields 10 tons of ore, worth 4½ per fathom. The lode in Nicholson's winze, sinking below the 150 west, continues a fine course of ore, worth for the length carried (10 ft.) 15 tons, or 7½ per fathom. In the 140 west there is no alteration. In the 120 west the lode is 4 ft. wide, containing black oxide and yellow copper ore. The shaft throughout the mine contains of the same productiveness and value.

HINGTON CONSOLS.—G. F. Richards, Dec. 23: I have continued to make fair progress with the sinking of the engine shaft, the same now being down a total depth of 8 fms. below the 18, and the shaft has apparently gone through the main part of the lode, the upper portion thereof having produced good saving work of lead and blende ores. Very good progress has been made in driving the 18 west, in which the lode has again improved, and produces very good work of silver-lead and blende ores. We are progressing favourably with the dressing arrangements, and hope soon to make a trial of the machinery.

HINGTON CONSOLS.—G. F. Richards, Dec. 30: Having got down into tolerably firm ground in the engine shaft, the shaft is now being turned on the under-sole, on the south side of the lode, and preparations are being made with all possible speed to fix a permanent or 12 in. plunger lift, which will be reared up to the surface, in order to convey the whole of our water to the reservoir. The rise in the very good progress has been made, and the lode is of a very encouraging character, producing saving work of lead and blende ores of good quality. We are endeavouring to get the dressing machinery and all the connections right, in order to make a trial next week, but it may possibly take a little longer than the time mentioned to get everything quite right.

LADY WELLS.—Arthur Waters, Dec. 30: There is no change here of note since my last report. The soft ground in the 32 south continues, and I expect to meet with a cross course shortly that will produce a change for the better in the main lode.

MARK V. LEE.—J. Secombe, J. Stenlake, F. Renals, Dec. 31: In the 136 west we have put the men to strip down the side of Marke's lode, and so far as seen, is composed of capel, quartz, and stones of copper ore. The lode in the 50 west will yield 1 ton per fm., and the 20 west 2 tons per fm. All other points throughout the mine are without change.

MONEYDOROUGH.—R. Rowe, Dec. 29: We are in full course of working, both at surface and underground, without anything very new to report. The end of the month being near, when all the bargains will be measured and set, a full report shall be forwarded next week. If you wish I can send out samples for 20 tons of silver lead next week, or wait longer and increase the quantity.

NEW CHIVERTON.—James Trewartha, Dec. 30: The engine-shaft is down 10 fms. 5 ft. below the 35; the lode is worth 18½ per fathom for length of shaft. The 35 north and 35 south are being driven by the side of the lode, which will be taken down next week, and then I will inform you respecting its value and indications. Good progress is being made in rising above the 35 north. The rise in the back of the 35 south is going up by the side of the lode, which was worth 8½ per fathom when last taken down. The tribute department is looking well.

NEW CONSOLS WORKS.—R. Pryor and Son, T. Jenkin, Dec. 28: The stopes continue to look well, and without any particular change since last week. All our surface operations are progressing in a most satisfactory way.

NEW HENDRA.—R. King, Dec. 28: The lode in the deep adit level continues just the same as last reported—the ground a little more favourable for driving. The lode is letting out water, and still produces good stones of copper.

NEW ROSEBURY.—W. Hosking, W. Hosking, Dec. 23: The lode in the stope above the 55 continues to look well, worth 18½ per fm. The 46, which is 20 fms. below the 55, is being pushed on with all speed.

NEW SOUTH MERLON.—R. Rowlands, Dec. 30: No particular change to note since my last. The men are urging on the driving from the bottom of the stope to meet another run of ore which should pass down from the level above.

NORTH LAXEY.—R. Rowe, Dec. 24: The north engine-shaft is down 5½ fms. below the 121; the lode is 18 in. wide, intersected with quartz and lead saving stuff; from appearance this improvement is likely to add considerably to the value of ground, and the lode small, but the end appears now to be getting clear of it, and the lode again opening and looking better. The stopes are without change; those in the 110 are worth about 1 ton of lead per fathom, and the 50 stopes about 15 cwt. of lead per fathom.

NORTH POOL.—W. C. Vivian, F. Clymo, Dec. 30: I have much pleasure in informing you that the lode in the 40 end presents a little better appearance than when I last reported. The lode is increasing in size, contains a larger proportion of quartz, than it has ever before done, is letting out more water, and yields about the same proportion of copper ore.

OLD TINCROFT CONSOLS.—J. Pope, Dec. 30: We have completed the engine shaft to the adit level, and commenced cutting plat, &c., and shall be sending down the pumps, rods, &c., next week. In the 30 fm. level, west of Diamond's shaft, the lode is 18 inches wide; good work for the stumps. In the 20 west the lode is 1 ft. wide, producing average tinstone. In the 10 west the lode is 2 ft. wide—a good deal of tin, but the surface work is rather behind on account of the severe weather. But now, being milder, I hope to make more dispatch.

OLD TREBUCKET.—W. Hancock, W. T. Bryant, Dec. 29: There is nothing new in any of the pitwork bargains since our report last week. Two of the tribute pitches have improved. The ores sold last week weigh out 1109½ lb. 28. 84. Messrs. the Burry Pot Company's parcel is delivered at Waterbridge, and we are getting ready to deliver Messrs. Nevill, Druce, and Co.'s parcel. We will send full report next week.

PAKES MOUNTAIN.—T. Mitchell, Dec. 27: I beg to hand you the setting list for January. The 60 cross-cut south to six men the month, at 11½ per fathom; the ground at present consists of chert rock, and is hard and spare for driving. The stopes at the intermediate level by four men, at 6½ lbs. per fathom, yielding 3 tons of copper ore and 2 tons of sulphur per fathom. Stopes in bottom of this level by six men, at 6½ per fathom, yielding 4 tons of copper ore and 2 tons of sulphur per fathom. Stopes east at this level by two men, at 6½ per fathom, yielding 2 tons of copper ore and 1 ton of sulphur per fathom. Stopes at the 60 west of cross-course, by six men, at 8½ lbs. per fathom, yielding 4 tons of copper ore and 2 tons of sulphur per fathom. Stopes in back of 65, east of rise, by six men, at 6½ per fathom, yielding 4 tons of copper ore and 2 tons of sulphur per fathom. The stopes at the 65 fm. level, over the latter, by six men, at 6½ per fathom, yielding 4 tons of copper ore and 1 ton of sulphur per fathom. Stopes at the 65 west of winze, by six men, at 6½ lbs. per fathom, yielding 4 tons of copper ore and 2 tons of sulphur per fathom. Stopes at the 65, east of winze, by six men, at 6½ per fathom, yielding 4 tons of copper ore and 1 ton of sulphur per fathom. The 65 end to drive west by four men, at 8½ lbs. per fathom, yielding about 1 ton of copper ore and 2 tons of sulphur per fathom—ground looking very promising. The 65, east of cross-course, by four men, at 10½ per fathom; lode all the width of the end, and will yield 4 tons of copper ore and 2 tons of sulphur per fathom. The lode is very hard at this point, and we think there is more copper and sulphur standing in the side, which will come away by stoping by-and-by. The 30 to drive across the lode, by four men, at 8½ lbs. per fathom. The end contains branches of sulphur, with good stones of copper ore; we are expecting a further improvement here shortly. This is a new trial, to prove the run of ore ground seen dipping west at the 80; a few fathoms driving will prove it. We have let 11 tribute pitches to 19 men at the usual prices.

T. Mitchell, Dec. 30: The various points of operation are in full work after the monthly setting on Friday last. The lode in the 45, east of cross-course, continues to open out wider, and has further improved in value. We have finished clearing up the precipitation pits, and are now busy drying the precipitate. We purpose sampling next week one lot of precipitate and one lot of copper ore.

PAULEY BRIDGE.—C. Williams, Dec. 30: Yesterday being our setting-day, the following bargains were let for one month.—New Discovery: To cross-cut north to cut the north end of the vein to four men, at 70s. per fathom—ground favourable. To stop the back over the east level to two men, at 50s. per fathom; the vein produces 1 ton of lead ore per fathom.—Gulf: To drive west by four men, at 40s. per cubic fathom; the vein is from 8 to 9 ft. wide, and producing 25 cwt. of lead ore per fathom. The west cross-cut in the 20 to six men, at 60s. per fm.; the vein in the end is from 2 to 5 ft. in width, 1 ft. of which is strong mineral ore—good work for the cross-cut; the cross-cut in the 20 to six men, at 240s. per fathom; ground hard, but congenial for mineral produce. The south-west cross-cut to four men, at 24 s. per fathom; ground still hard and wet.—Pringap: To drive east by six men, at 70s. per fathom, including wagoning and all other costs; the vein in the end is about 5 ft. wide, yielding at times fine stones of ore.—Gillfield: To sink the winze in the Sun vein to six men, at 70s. per fathom, and good progress is being made. I hope shortly to be able to furnish you with some encouraging account from this part of the mine. Our machinery works well, and all surface operations are progressing favourably. Smelting works in full employment.

PEDDAR DREA UNITED.—Wm. Tregay, Wm. Frideaux, J. Pope, Dec. 27: Bump: There has been nothing of importance intersected in the 160 north cross-cut since last report. In the 160 west the lode (Martin's) is worth 6½ per fathom. In the 150 west end the lode (Martin's) is worth 8½ per fathom. In the 140 west end the lode (Martin's) is worth 12½ per fathom. In the 130 west end the lode (north) is worth 15½ per fathom.—Carloz's: In the 100 west end the lode (north) is worth 15½ per fathom. In the 90 west winze the lode (north) is worth 10½ per fathom. In the 80 west end the lode (north) is worth 12½ per fathom. In the 70 west end the lode (north) is worth 10½ per fathom. In the 60 west end the lode (north) is worth 10½ per fathom. In the 50 west end the lode (north) is worth 12½ per fathom. In the 40 west end the lode (north) is worth 10½ per fathom. In the 30 west end the lode (north) is worth 10½ per fathom. In the 20 west end the lode (north) is worth 10½ per fathom. 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No. 2 drift is much improved, the vein of ore being about 2 ft. wide. The vein of ore in No. 5 drift now about 3 ft. wide.

* With this week's Journal a SUPPLEMENTAL SHEET is given, which contains—Original Correspondence: Colliery Explosions (C. Colwell, F. G. Evans, &c.); Explosion at Bremerhaven—Dynamite (A. Tuppman); Divining Rod (G. Rickard); Gold in Wales, No. XIII. (T. A. Readwin); Percy and Kelly Mining Company; Richmond Consolidated Mining Company; New Queensland Separation of Minerals; Wheel Grenville.—Lectures at the Royal School of Mines—Explosions in Mines—On the use of Gunpowder in Mines—Remarks on Deep Boring and Deep Mines—Meetings of Great Wheel Vor, Wheel Grenville, and Scottish Australian Companies.

The Mining Market: Prices of Metals, Ores, &c.

METAL MARKET—LONDON, DEC. 31, 1875.

IRON.	2 s. d.	2 s. d.	2 s. d.	TIN.	2 s. d.	2 s. d.	2 s. d.
Pig, G.M.B. f.o.b., Clyde.	3	3	6	English, ingot, f.o.b.	83	0	0
Scotch, f.o.b. No. 1.	3	3	0	bars	86	0	0
Wales, f.o.b. No. 1.	3	3	0	refined	89	0	0
in London.	7	12	6	Australian	80	10	0
Stafford.	5	15	0	Banco	88	0	0
in Tyne or Tees.	7	0	0	Straits	81	0	0
Swedish, London.	15	0	0				
Rails, Welsh, at works.	5	5	0	QUICKSILVER.			
Railway chairs.	—	—	—	Flasks of 75 lbs., ware.	10	15	0
spikes.	—	—	—				
Sheets, Staff., in London.	5	0	12	COPPER.			
Plates, Staff., in London.	15	0	12	Tough oak and ingot.	86	0	0
Hoops, Staff.	9	15	0	Best selected	87	0	0
Nail rods, Staff. in Lon.	8	15	0	Sheets and sheathing.	93	0	0
				Flat bottoms	97	0	0
STEEL.				Wallerroo, in ware.	90	0	0
English, spring.	16	0	25	Burra and Currawang	89	0	0
cast.	35	0	50	Other brands	86	0	0
Swedish, 15 lb.	10	0	0	Chili bars	81	0	0
lag, 10 lb.	21	0	0				
LEAD.				BRASS.			
English, pig, common.	2	5	0	Wire.	9	12	0
" L.B.	23	10	0	Tubes.	9	12	0
" W.B.	23	10	0	Sheets.	9	10	0
sheet and bar.	23	10	0	Yellow metal sheathing.	7	3	4
pipe.	23	15	0	Nails composition.	9	12	0
red.	24	0	25				
white.	28	0	29	TIN-PLATES.*			
patent shot.	26	5	0	Charcoal, 1st quality.	1	9	0
Spanish.	21	15	0	2nd quality.	1	5	6
				Coke, 1st quality.	1	3	0
				2nd quality.	1	1	2
				Black.	1	0	7
				Canas, Staff. or Gla.	15	0	10
				in English.	25	0	0
				English, Swansea.	26	0	0
				Sheet zinc.	31	0	0

* At the works, 1s. to 1s. 6d. per box less for ordinary; 10s. per ton less for Canada; 1X 6s. per box more than 1C quoted above, and add 6s. for each X. Terms—plates 2s. per box below tin-plates of similar brands.

REMARKS.—The amount of business done in the metal market during the week has, owing to the holidays, been exceedingly small. COPPER has been very dull, and prices are somewhat lower. There has been a few transactions in TIN, but the market closed weak, and prices for English could scarcely be maintained. In TIN-PLATES there is practically nothing doing, and IRON is in the same state. LEAD is a little firmer, but the transactions have been few and of small amount. QUICKSILVER is steady, at from 10l. 15s. to 11l. 5s. per flask. SPLITTER is firm in price, but there is no business doing. In another column will be found our usual retrospect of the metal market for the past year, which will be of general interest to readers of all classes.

THE IRON TRADE (Griffiths's Weekly Report).—Friday Evening.—We report an advance of 9d. per ton in G.M.B. pig iron on the Glasgow Exchange this week, the closing price to-day being 64s. 6d. to 64s. 9d. This day week the market left off at 63s. 6d. to 64s. We quote makers No. 1 iron:—Gartsherrie, 75s. 6d.; Coltness, 75s. 6d.; Calder, 75s. 6d.; Langloan, 75s. 6d.; Summerlee, 75s.; Monkland, 66s. f.o.b.; Glasgow, Glengarnock, 71s.; Eglington, 64s. f.o.b. Ardrossan; Shotts, 74s. 6d. f.o.b. Leith; Kennell, 66s. 6d. f.o.b. Boness.

We have very little change to notice in the iron trade this week. Pig-iron is a little better in Glasgow, Middlesbrough, and at Barrow, and the market was stronger yesterday on the Birmingham Exchange. One thousand eight hundred and seventy-five has been a year of strikes and rumours of strikes with the workmen, and to-morrow being the first of the new year, the colliers of the Black Country and the Cannock Chase district will give notice for an advance of wages. This is a bad beginning for the new year. The present depressed state of the iron trade and the complete invasion of the London iron market by the Belgian ironmasters ought to have taught the advisers of the colliers that this is not the opportune moment for the masters to agree to an advance of colliers' wages. One thing is certain—that a higher rate for coal will close the working of at least a third of the furnaces now in blast in South Staffordshire.

We have had but a very moderate business in iron on our market this week. The demand for boiler plates and ship plates has fallen off considerably. The orders for sheet-iron are less urgent for delivery; indeed, the sheet-iron demand is easier, with a diminished volume of orders on the market. This remark applies to all and every kind of iron, except a few special brands we may mention at the head of this category. Baldwin's sheets, which are still in good demand. The rail trade is in a deplorable condition, no orders coming forward. With regard to the tin plate trade, no doubt the market is firmer. Our friends in this department will do well to avoid heavy and long forward contracts. Tin plates will certainly improve, and that before the end of January. Our annual review of the iron trade will be sent out on Jan. 8.

Messrs. James and Shakspeare—COPPER: A further reduction of about 5s. per ton is to be noted in Chili bars, but this alteration is more nominal than real, as it arises principally from the indifference of buyers to operate at the present moment. France is still supplied by direct importations, which are offering in the Paris market at about 30s. per ton below the cost of imports from this side, this difference arising chiefly from the duty levied on indirect shipments. There is no change to note in Australian and stocks are likely to show a considerable reduction during the present month, some large parcels of Wallaroo having been lately shipped to Havre. English sorts are steady, with a moderate enquiry at our lowest quotations.—TIN: Smelters now quote the rates given in our list, and report a fair business doing thereat. A tolerably good trade has been done both in Australian and Straits. The latter sort, however, shows a decline of 6d. to 1s. per cwt., and the tendency of the market is evidently towards a close assimilation in values for both descriptions.—LEAD: The rise in this metal has made further progress, and buyers who require immediate delivery, either of Spanish or English pig, find it necessary to pay full rates; but the demand seems to be somewhat checked by the rapid upward movement.—TIN-PLATES also show a tendency to advance, and makers are becoming indifferent to booking orders, except on their own terms.

Messrs. Henry Rogers, Sons, and Co.—COPPER: Bars remain steady at 31l. to 31l. 10s.; but business in this metal is at a standstill. English copper is a shade firmer. Tin: Quotations have gone back a little, the demand not being so brisk.—SPLITTER very firm in price, but the market is by no means active.—LEAD is again fractionally dearer, supplies being still short. The demand, however, is not large.

Messrs. French and Smith—COPPER quiet.—TIN also dull, with but trifling transactions.—LEAD firm, with but few transactions to report. No change in quotations.—QUICKSILVER steady.

Messrs. Sanford and Bird—COPPER: There is very little doing, and prices remain without change.—TIN has been in good demand for consumption, and prices have consequently kept firm. The market closes quieter in tone.—TIN PLATES are still in fair demand, and prices are well maintained. In other metals no change to report.

Mr. Murrant—TIN: The value of foreign has not fluctuated more than 10s. per ton during the week; but the market has been quiet and flabby. The Christmas holidays and Malta outbreak having passed away at about one time without affecting the price of tin, no great change in values can be looked for at present. The week's sales have been 130 tons Straits and Australian at 80s. to 82s. for cash and forward delivery.

Messrs. Vivian, Younger, and Bond—COPPER: There has been little doing owing to the holidays, and the market has gradually become easier, with a few sales of Urmetenat and special brands at 51l. 10s. to 52l. 5s. In Wallaroo and Barroo a small business at 90l. to 90l. 10s. and 89l. respectively. Other brands of Australian at 86l. to 89l. as in quality. No change in English descriptions, and the demand continues dull.—TIN: Foreign in moderate request, with sales of Straits at 81s. to 81s. 6d., and Australian at 80s. to 80s. 6d., closing with a quiet market. English only in moderate demand, at 83s. to 84s. for common ingots.—TIN-PLATES: Steady.—IRON: No change.—SPLITTER: Steady.—LEAD: Firmer.

The Christmas holidays, immediately succeeded by the settlement of the fortnightly account in the MINING SHARE MARKET, have interfered with general business since our last, and prices are again, for the most part, nominal.

The mines dealt in have been Van, Roman Gravels, Tankerville, Parys Mountain, Pateley Bridge, West Chiverton, Tincroft, Santa Barbara, South Condurow, East Van, Devon Great Consols, Argentine, Penstruthal, Marke Valley, and a few others.

We have upon more than one occasion of late expressed an opinion that owing to the long continued depression in the mining market great bargains might be picked up by a judicious selection of very low-priced shares. And in the commencement of a new year we may direct attention occasionally to a few of these as probably the "coming mines" of 1876, leaving it to those who intend speculating to send, as a satisfaction to themselves, some independent agent to inspect them. In Cornwall, Devon, or Wales this can always be

done at a trifling cost, and if this plan were more generally adopted less disappointments would be met with.

Van has advanced to 32, 33; the directors have this week declared a dividend of 15s. per share for the quarter, and the mine has much improved. The 90 west is worth 100l. per fathom. The 75 is worth 100l. per fathom. The 60 is worth 30l. per fathom. At the 105 west there is ore coming into the north part of the lode. East Van has had a good deal of attention of late, and leave off 2 1/2 to 3; the shares were once at 13l., and should be met with there would again be a great rise. The new engine went to work this week. Van Consols, 1 1/2 to 1 1/2; this mine has been very disappointing, and shares have dropped from 7l., but there is always room in it for speculation and a sudden jump. Roman Gravels, 12 to 12 1/2; the 80, south of Corfield's, is worth 3 1/2 tons of lead per fathom. No other change. Tankerville, 10 1/2 to 11. West Tankerville, 1 1/2 to 1 1/2; the mine has sampled 20 tons of lead ore, for sale on the 6th inst. The 63 south is now worth 3 tons per fathom. This mine is looking much better than when shares were at 3 1/2. Pateley Bridge, 4 1/2 to 5 1/2; this mine has been introduced during the year, and is likely to be one of the prizes of 1876. Ladywell, 2 to 2 1/2; the sale of lead ore, 25 tons, realised 247l. 10s. Pennerley, 1 1/2 to 1 1/2. Bog, 6s. to 8s.

Prince of Wales, 4s. 6d. to 5s. 6d.; the lode in the 45 west continues worth 16l. per fathom, and if it continues, and proves to be a new shoot of ore, similar to that which further east gave good dividends to the shareholders at the same level, shares may rise. In the discovery of the eastern bunch a few years ago they rose from 6d. to 3l. Wheel Crebor, 2 1/2 to 2 1/2; the lode in the 48 still continues a rich course of ore, and the mine has sampled 100 tons of ore. Wheel Peavor, 2 to 2 1/2; the lode in the shaft below the 60 is worth 20l. per fathom for 12 ft. long; the 60 east, 14l. per fathom. East Lovell, 5 to 6; the lode in the Fatwork shaft is worth 3 tons of tin per fathom. North Busy, 8 1/2 to 9 1/2; at the meeting on Tuesday a dividend of 10s. per share was declared, and the prospects of the mine are considered to be excellent. New Rosewarne, 3 to 1; the lode in the 58 end is improving, and the slope worth 18l. per fathom. The mine has sampled 30 tons of copper ores, worth about 8l. per ton, and should the 46 and 67 ends come in, the mine will soon pay its way, and do something for the shareholders and make up for the disappointment in the tin lode. The district is essentially a copper one, and large profits have been made from it. Relistian Consols, 3 to 4; the lode in the shaft is large, and the agent is every day expecting to reach the junction of the copper lode.

Old Relistian was one of the richest copper mines in Cornwall, and Relistian Consols may be one of the "coming mines" for 1876. Parys Mountain, 1/2 to 1/2; this mine is making large returns of copper, &c., and the near approach of the lode at the 90 cross-cut south is watched with great interest. A good lode here would send the shares to par (3l.), and it may be met with at any hour. Trebeigh Consols, 7s. 6d. to 10s.; South Carn Brea, 1 1/2 to 1 1/2. Wheel Grenville have declined to 1 1/2, call paid; at the meeting on Thursday, reported in another column, a call of 15s. per share—which will nearly pay off outstanding liabilities—was made. The local agents, including the purser, were discharged; and Capt. T. Hodge, recommended by an agent, Capt. Seccombe, as in every respect competent, was appointed manager. New Consols, 1 1/2 to 1 1/2; this mine ought to take a good position in 1876; it has one of the most spirited and enterprising proprietors of any mine in Cornwall, and we heartily wish them success. Old Treburget, 4s. to 6s.; this mine is doing better, and should take its old position again ere long.

Among the heavy tin mines, Carn Brea shares are 37 to 39; Dolcoath, 40 to 42 1/2; Tincroft, 20 to 21; Cook's Kitchen, 5 1/2 to 6; South Condurow, 5 to 5 1/2; Devon Consols, 4 to 4 1/2; Great Laxey, 15 1/2 to 16; Great Wheel Vor, 2 1/2 to 3 1/2. Penstruthal, 8s. to 10s.; this mine is improving. West Chiverton, 15 1/2 to 16, ex div.; West Craven Moor, 10 to 10 1/2; West Tolgus, 60 to 62 1/2; Wheel Agar, 1 1/2 to 2. Wheel Bassetts have advanced to 20, 25, on a discovery of copper. Wheel Kitty (St. Agnes), 2 1/2 to 3; Wheel Ury, 1 1/2 to 2; St. Patrick, 1 1/2 to 1 1/2. New Chiverton, 6 1/2 to 7; shaft down 11 fms. below the 35, and valued by Capt. Southey, of West Chiverton, at 20l. per fathom. The 35 north is driven 34 fms., of which 20 fms. are worth 10l. per fathom, the rest a good leady lode. The tribute is looking very well. Great West Van, 10s. to 15s.; the lode in the 46 west is improving, worth 15 cwt. of lead per fathom. Cathedral, 20s. to 30s.; the manager reports the shaft to be almost down to the 40, at which point a good course of copper ore is expected. The next sale of copper will be made next week.

St. John Del Rey, 380 to 400; at the meeting here the Chairman stated that the profit paid to the shareholders since 1834 had been 1,035,640l., and the present profits are equal to 150,000l. per annum. Santa Barbara, 1 1/2 to 1 1/2; this mine is also in Brazil, and in precisely similar ground to St. John Del Rey; upon comparison of specimens of the ore from both mines the difference is scarcely perceptible. This and Argentine would appear to be the coming gold mines for 1876. Argentine, 6 1/2 to 7; San Pedro, 2 1/2 to 3; this is another of the "coming mines," and the advice just received, and which will be found in another column, are considered satisfactory. Almado and Tinto, 1/2 to 1/2; Cedar Creek, 1/2 to 1 1/2; Eberhardt and Aurora, 8 1/2 to 9; Emma, 1 to 1 1/2; Flagstaff, 1/2 to 1 1/2; Frontino and Bolivia, 1 1/2 to 1 1/2; Last Chance, 1/2 to 1 1/2; Chicago, 6 1/2 to 6 1/2; New Quebrada, 4 to 4 1/2; Richmond, 7 1/2 to 8; South Aurora, 3 1/2 to 4; Sweetland Creek, 2 1/2 to 3.

The Market for Mine Shares on the Stock Exchange during the week has been characterised by the inactivity usual at the close of the year. Little has occurred calling for attention, nearly the entire business having been in connection with the fortnightly account, commenced on Tuesday and completed on Thursday. As usual, the last settlement of the year was exceptionally heavy, but passed off without difficulty, showing that the business generally has been sound and of a bona fide character. New business has been checked by the somewhat stringent aspect of the money market, causing the directors of the Bank at their weekly court on Thursday to advance the official minimum from 3 per cent. (to which it was reduced on Nov. 18) to 4 per cent.; this movement was partly expected on account of the persistent withdrawals of gold for abroad and the weakness of the foreign exchanges, in addition to the usual demands at the end of the year. It is believed that for the present gold will continue to be sent from this side, although the drain is not expected to be of any duration.

It is unnecessary here to refer to the condition and prospects of the metal markets, as the usual annual review appears in another part of to-day's Journal.

Lead Mines during 1875 have maintained a favourable and improving position. Many of the more prominent descriptions have declared larger dividends; encouraging progress has been made in the development of others; the general indications in this department are quite satisfactory. Van, the chief representative, has continued to open out remarkably well; 5720 tons of lead have been sold during the year, realising 90,177l., and 1750 tons of blende, realising 5150l., or a total of 95,327l. The April dividend paid was 9000l.; June, 9750l.; September, 10,500l.; and December (15s. per share), 11,250l.—a total of 40,500l. during the year. Considerable expense has been incurred in re-constructing the whole of the dressing floors, making them equal to larger returns. A new reservoir has also been built, nearly doubling the quantity of water hitherto available, and also another row of miners' cottages, the whole of this expenditure has been met out of the revenue. The lode in the 90 west is worth 100l. per cubic fathom; the 70 west, 100l. per cubic fathom, and the 60 west, 30l. per fathom; the engine-shaft is down to the level of the 105, where there appears to be a great improvement, as splendid rocks of lead ore are being cut in north side of the shaft. It would seem the lode is making its appearance in the shaft, indicating that the lode from the next level above widened 7 fms.; the ultimate value of this important discovery it is impossible to determine. Since this mine was introduced by Mr. Batters, in 1869, dividends of nearly 250,000l. have been paid, and it seems yet in its infancy; the shares have been in demand, and close at the highest point—32 1/2 to 35 1/2. Roman Gravels, 11 1/2 to 12 1/2; the mine is opening out well. Great Laxey, 15 to 16; Tankerville, 10 1/2 to 11. Pateley Bridge, 4 1/2 to 5 1/2; this company, formed during the present year to work an extensive group of Yorkshire mines, with a

capital of 15,000l., commenced smelting a fortnight since. Records show these mines have been highly profitable for the past 80 years, and the recent developments point to a renewed career of prosperity. There is no change reported this week. The various operations are in full work. Smelting is also progressing satisfactorily. Grogwinion, 3 to 3 1/2; the monthly sale of 70 tons of lead on Thursday realised 15l. 4s. 6d. per ton. The manager reports that the No. 4 lode in the 14 fm. level has improved very much. Cardiganshire: This mine during the past year has sold 790 tons of lead ore, realising 14,341l. About 7000l. has been paid in wages. The present returns are 70 tons per month, but as the main shaft, which has been several years in sinking, is now completed, the manager intends shortly to increase the output to 100 tons monthly, which increase will be attained with a small comparatively additional outlay. The company has paid two small dividends (2s. per share in 1874, and 1s. per share for the first half of 1875). The dividend for the second half of the year will probably show a large increase. The mine has been developed in a systematic manner, and the reserves of ore have been estimated at 100,000l. The mine is worked entirely by water-power, and the plant and machinery are of the best description. Pennerley, 1 1/2 to 1 1/2; the appearances at the old mines are favourable for an improvement at more than one drive. At Potter's Pit the sinking of the shaft is being rapidly pushed on, and the different levels are opening up good ore ground. Wye Valley, 5 to 6; the manager reports that the mine still improves, and the workings in the 14 east are yielding splendid ore; 40 tons of lead were sold on Wednesday at 14l. 12s. per ton. Bog, 4 1/2 to 5; there is no change to notice from this mine. The ends are being pushed on vigorously, and are looking well for improvement. Llanidloes, 3 to 3 1/2; an improvement has taken place in the 60 fm. or bottom level, where the lode has been cut worth about 1 1/2 ton to the fathom. Other points looking well. The first parcel of lead (20 tons) was sold on Thursday, at 14l. 9s. per ton. West Wye Valley, 3 1/2 to 3 1/2; the mine continues to open out well at all points; the 14 fm. level, going towards Wye Valley, still improves. Brookes's shaft is being steadily pushed down. Van Consols, 1 1/2 to 1 1/2. Assheton, 1 1/2 to 1 1/2. West Goginan, 1 1/2 to 2 1/2; the 24 fm. level has improved. West Tankerville, 1 1/2 to 1 1/2. South Cwmystwith, 1 1/2 to 2; several discoveries of lead have been made in the upper level in No. 2 lode. All other parts of mine doing well. Melindur Valley, 2 to 3; the 14 fm. level east has considerably improved, and is yielding good lead ore.

Foreign Quartz Mines during 1875 have had their representative in St. John Del Rey; the stock during that period has risen from under 300 to 415, and the dividend to 25 per cent. for the half-year. The aggregate amount paid in dividends up to date has been 1,035,640l., or an average for each of the 33 years since the first dividend was paid of 23 per cent. per annum on the original paid-up capital. During the year the works have been carried on with energy and success; and for the second half-year the net profit was 77,317l., the produce during that period having been 35 per cent. and the profit 43 per cent. more than for the preceding half-year, a result obtained during the dry season of the year when all the machinery has to be kept at a slow speed from insufficiency of water-power. The average monthly profit for the last half-year was 12,998l.; and for October, 15,300l.; November, 15,300l. The future has been indicated by the statement of the manager, at the general meeting last week, that the present rate of dividend (50 per cent. per annum) can be increased by opening the mine upon a larger scale, and making the property the first in Brazil, if not in the world. The closing price is 370 to 390, ex div. Argentine, 6 1/2 to 7 1/2; this company has been successfully formed during the year, and its prospects are regarded as most encouraging. Extensive machinery is being erected, and an establishment formed that in point of utility will, when completed, bear favourable comparison with St. John Del Rey. Modern appliances will be employed in unwatering the old workings, and laying open the mines in a systematic manner. This has never been done. The mineral taken from all parts of the lodes averages nearly 2 1/2 ozs. of gold per ton. The main lode averages 10 ft. wide, and is in places as much as 60 ft. On the back of this great lode there is a length of between one and two miles, the whole having been worked away to a depth of 40 fms. As far as seen the pyrites part of the lode, which the natives could not work, yields about 1 oz. of gold per ton. Stamping-engine and stamp-heads, capable of returning about 1500 tons, have been erected, but the power is equal to 100 heads. The estimated profits from the 36 heads of stamps, the ore averaging only 1/2 oz. per ton, are 1500l. per month, and with the 100 heads the profits should be quadrupled.

Silver Mines during 1875 have, on the whole, made fair progress with results tolerably satisfactory. The most noteworthy feature has been the altered condition of the Eberhardt Company; the heavy indebtedness has been paid off, the debentures redeemed, and a dividend of probably 7s. 6d. or 10s. per share will be paid early in the year. Richmond shares upon the "account" hardened up to 7 1/2, and then flattened to 7 1/2, closing 7 1/2 to 7 1/2. Cablegram received—"Week's run, \$38,000." The season's make of bullion is \$1,432,000, and since February \$1,962,000. The refinery this season has produced gold and silver to the value of \$925,000, irrespective of the lead. The run this week is not a satisfactory one, and it may be hoped that some sufficient explanation of the cause may be afforded. The large furnaces employed by the company need skilled smelters to do them justice, and no pains should be spared to procure efficient hands. It is a misfortune that the chief smelter, Mr. Stringer, had become so completely "leaded," as it is termed, that it was necessary for him to go away to recruit his health. Two of the miners have, unfortunately, been killed, owing to the collapse of an abandoned slope, from which they were making a drift, shutting them off from the possibility of escape. The accident does not interfere with the working of the mine in any way, the site of the disaster being between the 200 and 400 ft. levels, where all the ore had been taken out. The manager's report this week gives the depth then attained in the winze sunk below the 600 in continuation of the main lode as "35 ft. in good ore," the slope in the new discovery in the 600 drift, between the main lode and hoisting shaft, is "opening out well."

The extension of the Lizette Tunnel is stated to be "looking very promising; the end-to-day is also in ledge matter, with pieces of low-grade ore." The object of this extension being to strike the ore bed supposed to run through the mine in continuation of the West Hill discovery, the changes indicated at the end of the tunnel are encouraging. The roads in Eureka at the beginning of the winter are generally softened by the first falls of snow, and when the frost increases they become in a good state for hauling. As the improvement is stated to have commenced, it may be hoped that no further interruption may occur for some months in bringing down ore from the mine to the works. There is enough on the dumps to keep the furnaces running for some weeks, but the ore in stock is deficient in lead, and good smelting results cannot be made till a sufficient addition can be provided from the bottom of the mine, which the new hoisting power now makes available, as soon as the ore can be hauled when raised. The Eureka Sentinel of Dec. 3 has the following:—

"From persons who have recently visited the lower depths of the Richmond we are informed that the mine has never presented so favourable an appearance as at present. At the 600 ft. level fine bodies of ore have been struck, all of which are making downwards, and everything indicates that they are on the croppings of a bonanza which extends indefinitely in the direction of the centre of gravitation. As that depth in the Richmond is at least 100 ft. lower than the lowest workings of any other mine in Ruby Hill, the recent discoveries are encouraging evidence of the permanency of the deposits in that vicinity."

The past year has been an uneventful one in the history of the hydraulic gold mines represented on the English market. The bad water season prevented any very great amount of washing, but nevertheless the different companies have been exceedingly busy in constructing increased facilities for dealing with the auriferous gravel, and this year will doubtless show the value of the works thus undertaken. Sweetland Creek mines were shut down for nearly five months during the first part of the year, owing to their water contract being out. As soon as the new contract was entered into, washing recommenced, and although the work was thus resumed as the slow-water season was drawing to an end. The company has made some 5000l. profit to date of last clean-up, end of November, and divided 3000l. amongst the shareholders of the company. Washing, we are told, is now in full blast, with ample water, and

prospects good. Birdseye Creek during the year has been busily occupied in running a tunnel and sinking a shaft to open up their Red Dog claims. This work was completed at the close of last summer, and the tunnel, 775 ft. in length, blocked and put in order for washing through. In completing this work the company made use of the profit obtained from working other portions of the property, and thus enter upon the current season fully prepared to take advantage of the water, and with claims in good shape for washing. Work has been resumed on three different sets of claims, and the future of the company is exceedingly promising.—Cedar Creek: The annual meeting has been held so lately that we make but a passing reference to it, especially as we published full particulars of the meeting in a late impression. There can be no doubt, however, but that if the money to complete the Yankee Tunnel is forthcoming as indicated, the company will take a much better position during the coming year. Blue Tent has undertaken and carried out a gigantic work during the year—the completion of a ditch to carry about 4000 inches of water from the South Yuba river to the property, a distance of over 30 miles, and are now running water through it and washing therewith. Of course, being new, it would not be judicious to work the aqueduct to its full capacity, but persons conversant with this description of mining are of opinion that when fully utilized the returns will be exceedingly large, as the company possess an immense quantity of rich gravel, have a splendid outlet and free water, and can bring more water to bear on the face of the bank than any English company has been hitherto able to obtain. Oregon has been formed during the past year, and have commenced operations with spirit. They have completed a tunnel, enlarged their ditch, thus securing ample water supply, and are now fixing new monitors to use the water. In the meantime, their agent cables that he has started washing on one claim and nearly completed a short branch ditch which, when finished, will enable him to commence operations on other portions of the gravel.

The shares of the various Hydraulic Gold Companies upon the Stock Exchange during the week have not exhibited much alteration, though there has been an enquiry for them, notwithstanding the close of the year, and the usual fortnightly settlement. Blue Tent, 4 to 4½; washing has been resumed with water from the company's own ditch, and will henceforth be steadily carried on during the season. In another column we print some extracts from the report made by Prof. Price on the completion of the aqueduct, detailing the particulars of the work done. We have no doubt this ditch will make the company an immense success. Sweetland Creek shares close steady, at about last week's quotations—2½ to 3, ex div. The agent, Mr. G. D. McLean, reports that he is steadily washing.

Birdseye Creek have improved upon enquiries for the shares, and are now quoted 2½ to 2½; shares very scarce. Washing is now being carried on at three claims, with every appearance of good result. Oregon pref, 4 to 4½; a telegram, printed in another column, announces that the agent has commenced work on the Thoss claims while the other necessary operations in the tunnel and ditches are well on towards completion.

Copper Mines during 1875 have again been represented by Cape Copper. The output up to the end of October from Ookiep was 8975 tons of 29 per cent. ore, and 448 tons of over 30 per cent. from Spectakel, of the gross value in round numbers of between 200,000, and 220,000; the cost may be estimated at about 10s. 6d. per unit, and prices realised 16s. 6d. per unit, or a profit of 9s. 6d. per ton. In 1874 the output from Ookiep was 7475 tons, and Spectakel 505 tons. The increase has taken place more particularly in the last two months. One of the most favourable points in Ookiep is the considerable lengthening of the ore ground east in the 68. The closing price is 37 to 38. San Pedro, 2½ to 3½; at the Santa Helena Mine the manto is worth 2 tons of 25 per cent. ore per fathom; in the Cuba Mine another manto has been cut; several other features of importance are reported in the advices in another column.

Tin mines throughout the year have been adversely affected by the low price of tin, and there is not much encouraging information to communicate. Great Wheal Vor, 3 to 3½. During the past year the water has been drained out of West Metal shaft at the bottom, and the shaft sunk 10 fms. to the 80 fm. level. After sinking about 18 ft. below the bottom, or 70 fm. level, left by former workers, the lode considerably improved, at one time producing over a ton of tin to the fm. It then became disordered by the intersection of a spar course, but is again becoming settled, and producing good tin stuff, with every appearance of further improvement. Other points of promise are being prosecuted at the 70 and 40 fm. levels, with every prospect of opening up a good mine. The new stamps will be at work in the course of a week or two, shortly after which the mine may be expected to be self-supporting. The shares, which were unsaleable 12 months ago, are now quoted and dealt in at 3½. The details of the general meeting appear elsewhere.

Subjoined are the closing quotations:—Ashtedon, ¾ to 1½; Bog, ¾ to 1½; Carn Brea, 38 to 40; Devon Great Consols, 4¼ to 4½; Dolcoath, 40 to 42; East Caradon, 1½ to 1½; East Van, 2½ to 3; Great Laxey, 15 to 16; Great Wheal Vor, 2½ to 3½; Hingston Down, 1 to 1½; Marke Valley, 3 to 3½; Pateley Bridge, 4¼ to 5¼; Pennerley, 1½ to 1½; Pensthorpe, 3s. to 10s.; Fanny Mountain, 10s. to 12s.; Roman Gravel, 1½ to 1½; Tankerville, 10½ to 11; Van, 2½ to 3½; Van Consols, 1½ to 1½; West Basset, 8 to 9; West Chiverton, 15 to 15½; West Tankerville, 1½ to 1½; Wheal Grenville, 1½ to 1½; Almaden and Tinto, ¾ to ¾; Argentine, 6½ to 7; Birdseye Creek, 2½ to 2½; Cape Copper, 37 to 38; Cedar Creek, ¾ to ¾; Chalmers, ¾ to ¾; Colorado Terrible, 1½ to 2; Don Pedro, ¾ to ¾; Eberhard and Aurora, 8½ to 8½; Emma, 1 to 1½; Exchequer Gold, ¾ to ¾; Flagstaff, ¾ to 1; Frontino and Bolivia, 1½ to 1½; Javali, 10s. to 12s. 6d.; Last Chance, ¾ to ¾; New Quebec, 4 to 4½; Richmond Consolidated, 7½ to 7½; St. John del Rey, 370 to 380, ex div.; San Pedro, 2½ to 2½; South Australia, ¾ to ¾; Sweetland Creek, 2½ to 2½; Teocoma, ¾ to ¾; United Mexican, 4 to 4½; Blue Tent, 4 to 4½; Oregon pref., 4 to 4½.

SHEFFIELD.—Mr. J. R. Heard, stock and share broker, in his weekly report, says—Very little business has been done during the past week on account of the Christmas holidays. Parkgate, 25 per cent. better. Bilbao Iron Ore Company, 43 to 45; Bolckow, Vaughan, and Co., 12½ to 12½ prem.; Charles Cammell and Co., 6½ to 5½ dis.; 6½, 6½, 6½; Ebbw Vale Steel and Iron Company, 15½ to 15½ dis.; Hopkins, Gilks, and Co., 6 to 5½ dis.; John Brown and Co., 6 to 7 prem.; Midland Iron Company, 3 to 4 prem.; Parkgate Iron Company, 11½ to 12½ prem.; Sheepbridge Coal and Iron Company, 21½ to 21½ prem.; 21 7/16ths, 21½; Staveley Coal and Iron Company, 4½ to 4½ prem.; Davy Brothers, 11½ to 11½ prem.; Earl's Shipbuilding, 20 to 18 dis.; John Crossley and Sons, 3½ to 3½ prem.; Jos. Rogers and Son, 205 to 210; Palmer's Shipbuilding Company, 14½ to 13½ dis.; Wm. Jessop and Sons, ¾ to ¾ prem.; 1½, 1½, 1½; London General Omnibus Company, 123 to 123; Sheffield Tramway Company, 8½ to 8½; Sheffield Gas A stock, 208½, 209½, 209; Sheffield Gas B stock, 207½, 208½, 208, old lot 8.

HALIFAX SHARE MARKET.—Dec. 30: The following quotations are from Mr. J. H. Thacker's list:—Halifax and Huddersfield Union Bank, 30; Halifax Joint-Stock Bank, 28½; Halifax Commercial Bank, 25; London and Yorkshire Bank, 28; John Crossley's, 13½; Whitworth and Co., 9; Elland Gas, 20; Bristock Gas, 18½; Bradford Brick and Tile, A, 24; B, 7½; Charlestown Brick and Tile, 24; Ripponden Commercial, 12½; Holden Bridge Cotton, 10; Yorkshire Boiler and Insurance Company, 21s.; Norton Brothers, 8-1-16th.

At Swansea Ticketing, on Tuesday, 1425 tons of copper ore were sold, realising 20,811 7s. 0d. The particulars of the sale were:—Average standard for 9 per cent. produce, 104 12s. 0d.; average produce, 17½; average price per ton, 14 12s. 1d.; quantity of fine copper, 251 tons 3 cwt. Subjoined are the particulars of the two last sales:—

Date.	Tons.	Standard.	Produce.	Per ton.	Per unit.	Ore-copper.
Dec. 7.....	1411	104 12 0	104 12 0	15s. 9d.	15s. 9d.	278 15 0
Dec. 28.....	1425	104 12 0	104 12 0	16 6	16 6	82 10 0

Compared with the last sale, the advance has been in the standard 1 18s. 0d., and in the price per ton of ore about 6s. 8d. There will be no sale on Jan. 11.

CAPE ORES.—Messrs. Richardson report that at the Swansea Ticketing, on Tuesday, the Cape ores sold gave an average produce of 24 15-16ths, and realised 16s. 8d. per unit, or 20 14s. 10s. per 21 cwt. dry weight of ore. The average standard was 92 14s. 9d. = 104 19s. 6d. for 9 per cent. produce, which is about 8s. lower than the corresponding calculated standard realised for other ores.

Messrs. C. and F. Kemp and J. E. F. Aylmer, the official liquidators of the Bessemer Steel and Ordnance Company (Limited), have announced a first and final dividend of 5s. 3d. in 1/.

WEST TANKERVILLE.—The boundary shaft is down 6 fathoms below the 63. The 63 south is worth 2 tons of lead ore per fathom, and the stope in this level 1½ ton. The waste below the 50 is down 7½ fathoms, lode worth 3 tons per fathom; No. 1 stope in this level,

1½ ton; No. 2 stope, 1½ ton; and No. 3, 1 ton. The 50 south, 1½ ton, and the stope in the 46, 25½ per fathom.

NEW CHIVERTON.—The shaft is sunk 11 fms. under the 35, where the lode is valued at 20½ by Capt. Southey, of West Chiverton, who has just inspected the mine. The 35 north is driven 34 fms., of which 20 fms. are worth 10½ per fathom, and the rest a good lead lode. By March the 50 will be reached, and a rich lode probably opened on there at once. The tribute department looking well.

BRISTOL MINING SCHOOL.—The following are the results of the examination for the prizes given by the governors for general success in the studies of the past term:—First prize, Mr. E. Lewis, of Maseyemmer; second, Mr. Griffiths, of Blaina; third, Mr. Pardoe, of Aberdare.

FROM A LONDON BROKER'S CIRCULAR.

Business in the Stock Exchange during the past week has been of an extremely limited nature, and chiefly confined to English railways, which in most cases have materially improved in price. Great Western, North British, London and North-Western, and Berwick show a rise for the week of from 3 to 4 per cent.; Sheffield, Great Eastern, and Caledonian from 1 to 2 per cent. London and Brighton stock has been dull, the ordinary having fallen about 1 per cent. The traffic returns issued this week were very good. In the foreign market there is little change worthy of note. Turkish and Egyptian stocks have been freely sold, the former having realised 1 per cent. Peruvians kept steady, but show no particular movement, great uncertainty still prevailing as to the payment of the coupons. Among miscellaneous securities the stock of the Anglo-American Telegraph Company has been largely sold, and has fallen about 1½ per cent. The rise in the Bank rate yesterday of 1 per cent. had little effect on the market, as it was generally anticipated.

London, Dec. 31.

J. Y. WATSON, JUN.

PATELEY BRIDGE LEAD MINES AND SMELTING COMPANY (LIMITED).

Messrs. F. W. Mansell and Co. (Sworn Brokers) afford the LATEST INFORMATION from these VALUABLE MINES. HYDRAULIC GOLD, RICHMOND, EBERHARDT, ROMAN GRAVELS, VAN SAN PEDRO, ST. JOHN DEL REY, STOCK EXCHANGE MARKET, &c. See page 3 in to-day's Journal.

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THE ADVERTISER is desirous of meeting with a Gentleman who would INVEST MODERATE CAPITAL in the developing of an excellent COAL FIELD in FLINTSHIRE. Coal is proved, and a shaft sunk. The property is in the midst of a coal district, and near to the London and North-Western Railway. Address, "Mine," 278, Park-road, Liverpool.

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BRISTOL MINING SCHOOL.

THIS SCHOOL RE-OPENS on MONDAY, the 17th instant.—For particulars, apply to Mr. WM. BARGE, Merchants' Hall, Bristol, who will ENTER PUPILS and RECEIVE FEES.

RICHARD P. ROTHWELL, C.E., M.E.,

MINING AND CIVIL ENGINEER,

27, PARK PLACE, NEW YORK.

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LEAD ORES.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
Dec. 10—Talybont.....	—	—	£13 11 0	Nevill, Druce, and Co.
13—Lisburne—Glogfawr. 60	—	15 4 6	—	Weston, Son, and Co.
—Glogfawr. 12	—	19 18 0	—	Burby Port Company.
—East Darren..... 65	—	18 10 0	—	Panther Lead Company.
—Cwmystwith..... 25	—	13 12 6	—	Burby Port Company.
23—Caelan..... 7	—	14 10 0	—	Walker, Parker, and Co.
24—Rhoswydol..... 20	—	13 16 6	—	South Wales Company.
27—Lisburne—Frongoch. 50	—	14 9 6	—	Panther Lead Company.
—Graigoch. 24	—	—	—	Weston, Son, and Co.
28—Foxdale..... 100	—	24 1 6	—	Burby Port Company.
29—Llanidloes..... 20	—	14 9 0	—	Nevill, Druce, and Co.
—Wye Valley..... 40	—	14 12 0	—	ditto
—Great Laxey..... 100	—	25 2 6	—	ditto
30—Ladwell..... 25	—	13 18 6	—	ditto
—Grogwinion..... 70	—	15 4 6	—	Walker Parker, and Co.

BLLENDE.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
Dec. 24—Willoughby..... 30	—	£ 4 1 0	—	Vivian and Sons.
29—Bog..... 50	—	6 2 6	—	Richardson and Co.
—ditto..... 50	—	6 2 6	—	Richardson and Co.
—Cwmbyr..... 25	—	5 2 6	—	Villiers Spelter Co.

BLACK TIN.

Date.	Mines.	Tons c. q. lb.	Price per ton.	Amount.	Purchaser.
Dec. 29—Wheal Coates..... 6 5 1 21	—	—	£48 2 6	£301 16 8	Daubuz & Co.

COPPER ORES.

Sampled Dec. 15, and sold at Swansea, Dec. 28.

Mines.	Tons.	Produce.	Price.	Mines.	Tons.	Produce.	Price.
Cape Ore..... 64	24½	220 6 6	—	Knockmahon..... 139	63½	£3 3 0	—
ditto..... 63	24½	20 6 6	—	ditto..... 125	6½	5 1 0	—
ditto..... 63	24½	20 6 6	—	ditto..... 63	9½	7 12 0	—
ditto..... 64	25½	20 12 6	—	ditto..... 22	6	4 16 0	—
ditto..... 64	25	20 12 6	—	Berehaven..... 125	7¾	6 6 6	—
ditto..... 64	25	20 12 6	—	ditto..... 39	9½	7 18 0	—
ditto..... 64	25	20 17 6	—	Concordia..... 33	19½	18 0 0	—
ditto..... 64	25	20 17 6	—	ditto..... 25	19½	16 4 0	—
ditto..... 69	25½	20 19 0	—	Copper Reg. 12	28	21 16 6	—
ditto..... 68	25½	21 3 6	—	— Ore 10	2½	0 18 6	—
ditto..... 60	25½	21 7 6	—	Sweepings..... 2	8½	5 19 0	—

TOTAL PRODUCE.
Cape Ore..... 771..... £15,991 6 0
Knockmahon..... 349..... 1,931 10 0
Berehaven..... 223..... 1,672 12 0
Concordia Ore..... 68..... 983 0 0

COMPANIES BY WHOM THE ORES WERE PURCHASED.

Names.	Tons.	Amount.
Copper Miners' Company.....	126	£ 2,372 18 0
P. Grenfell and Sons.....	192	4,008 0 0
Nevill, Druce, and Co.....	24	283 1 0
Williams, Foster, and Co.....	504	2,853 10 0
William and Sons.....	253	£ 5,12 17 0
British and Foreign Copper Company.....	33	455 14 0
Mason and Elkington.....	160	3,295 10 0
Sweetland and Company.....	60	1,282 0 0
Lundore Smelting Company.....	69	1,445 11 0
Total.....	1425	£20,811 9 0

NO SALE on Jan. 11.

TOTALS AND AVERAGES.

Whole sale.....	1425	17½	£14 12 1	Per unit.	Standard.
				16s. 6d.	£104 12 0

COPPER ORES.

Sampled Dec. 5, and sold at the Royal Hotel, Truro, Dec. 23.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
South Caradon	91	£5 3 6	Glasgow Caradon	85	£5 11 6
ditto	90	6 12 0	ditto	71	5 5 6
ditto	89	5 9 0	ditto	70	4 7 6
ditto	88	5 7 4	ditto	69	3 3 6
ditto	87	6 0 0	Gawthwaite	68	3 5 6
ditto	61	7 7 6	ditto	7	7 0 0
ditto	59	13 14 6	ditto	26	1 10 0
ditto	55	6 10 0	ditto	10	9 12 6
ditto	54	4 19 0	West Maria & Fortescue	82	3 3 6
ditto	53	4 10 0	ditto	86	8 4 0
ditto	51	6 6 0	East Caradon	80	11 10 0
ditto	47	12 19 6	ditto	54	4 9 6
ditto	46	7 17 0	Wheal Russell	71	3 0 6
ditto	40	9 19 0	ditto	31	3 2 6
Mark Valley	103	3 10 6	Bedford United	88	3 12 6
ditto	102	3 10 6	ditto	9	9 5 6
ditto	78	3 16 0	Phoenix	50	3 10 6
ditto	75	3 1 6	Wheal Friendship	31	9 4 0
ditto	62	3 15 6	ditto	29	4 4 6
ditto	36	2 9 6	Wheal Emma	30	5 4 6
Hington Down	82	4 10 0	ditto	10	3 11 6
ditto	83	4 6 0	ditto	9	11 10 6
ditto	69	2 1 6			

Notices to Correspondents.

* Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be kept on receipt; it then forms an accumulating useful work of reference.

SIR,—Can any reader inform me if tale with a beautiful display of colour is marketable?—T. H. A.

TECHNOLOGICAL DICTIONARY.—“H. K. C.” (Manchester).—The best of the cheap technological dictionaries—English, French, German—are the abridged Karmarsch, published at about 9s. the three volumes by Triebner and Co., of Ludgate Hill, and Tolhausen's, published by Sampson Low and Co. The latter, however, is not complete; the third volume was promised during 1875, so that it may be expected shortly. Karmarsch is, perhaps, the best for general use, that of Tolhausen being a compilation by one person of necessity imperfectly acquainted with the technicalities of nine-tenths of the industries included. Both dictionaries are shortcoming in the English part; no Englishman having been connected with the editing of Karmarsch, and Mr. Tolhausen being a Dutchman.

ASBESTOS.—“R. F. K.” (Tunro).—The present value of the mineral in the fibrous condition would be from 12s. to 15s. per ton. It is not essential that the fibres should be particularly long. For boiler covering it has been found very useful, from its incombustibility. It may be laid on about 3 in. thick, held in position by a coarse canvas or tarpaulin, and bound round with rope or wire. The Germans call it by the names of Bergfachs, Bergwolle, &c., according to its precise structure, but they are all much alike in utility for boiler jacketing.

INSTITUTION OF CIVIL ENGINEERS.—“J.”—In order to be eligible for membership of the Institution of Civil Engineers you will have to prove to the satisfaction of the Council that you have had the practical control of engineering works, and that you are professionally engaged as an engineer. The association can be obtained without such practical experience. In both cases introduction is necessary as a guarantee for the professional standing and acquirements of the candidate, but the admission to either class involves no insuperable difficulties. Mr. James Forrest, the secretary, will give all particulars upon personal application to him at Great George Street.

CERTIFICATES OF COMPETENCY.—“A. B.” (Newcastle).—The character of the examinations for Certificates of Competency differs somewhat in different districts, but the great object of the Legislature was to prevent the management of collieries being entrusted to any who were not well acquainted with the means of rendering them as safe as possible. The practical knowledge and experience of the candidate is the chief point considered in every case, but in some districts more attention is paid to theory than in others. In one district the examiners declined to publish the papers set, for fear of having to construct a fresh set; but this amount of ignorance is found in only one or two districts.

The letter of Mr. S. Treseder on a Double Action Air Pump for Collieries shall appear in next week's Journal.

Received.—“D.” (Cardiff).—“W. W.” (Reader). The quotation was a correct one.—“Shareholder” (Blue Tent).—“Engineer” (Leeds). We shall be glad to have a description of the invention, which we will readily publish.—“Shareholder” (Emma) should attend the meeting; we could not publish such a letter without the writer's name being attached.—“J. N. C.” (Brighton).—“C. K.” (Dowsing Rod). Next week.—“Shareholder” (Wheat Crebor).

IMPORTANT NOTICE.—REDUCTION OF POSTAGE ON THE “MINING JOURNAL.”—In consequence of the new POSTAL CONVENTION, which came into operation on July 1, the postage of the Mining Journal to many countries will be reduced to one fourth. Henceforth the subscription will be 12s. 6d. per annum (39 frs.), postage included, for the following countries. The amount will, if desired, be collected at the subscriber's residence at the end of each year. The subscription continues until countermanded.—Austria, France, Belgium, Denmark (including Iceland and the Faroe Islands), Egypt, Germany, Gibraltar, Greece, Heligoland, Italy, Luxemburg, Netherlands, Norway, Portugal (including Madeira and the Azores), Roumania, Russia, Serbia, Sweden, Switzerland, United States, Malta, Turkey, Morocco, Tunis, and the Canary Islands. Spain 12s. (50 frs.).

TAX SUPPLEMENTARY SHEET.—We have received occasional complaints, and at last a good many, that the Journal is delivered by country booksellers without the Supplement. Subscribers would oblige us by demanding that the paper should be handed to them complete, as every Journal is accompanied by the Supplement when it leaves our office, and the fault of omission must rest with the country bookseller or their London agent.

THE MINING JOURNAL, Railway and Commercial Gazette.

LONDON, JANUARY 1, 1876.

THE EXPLOSION AT SWAITHIE MAIN COLLIERY.

No great progress, it appears, has been made in clearing the large amount of fallen material caused by the explosion, and so exploring the workings and recovering the other bodies yet remaining. One of the unrecovered is that of AKERS, who on the Saturday took down a 7-ft. drill, and also a considerable quantity of powder from his own house. A good deal of scientific evidence has yet to be given, including that of Mr. WARDELL and Mr. EVANS, the Government Inspectors. But, from what was stated on the last day of the enquiry before the adjournment, there does not appear to be any doubt but that the sad fatality was the result of shot firing in a mine that was known to give off a great deal of gas, and where there were extensive goafs fully charged with it. The practice of using gunpowder in such places we have frequently condemned, and the ablest engineers who gave evidence now agree with us. But it would have been far better had they one and all made every possible exertion in the matter, and aided the Government Inspector in his crusade against powder. It is quite true the witnesses did not commit themselves by saying that shot-firing was the cause of the accident, but they steered very close in that direction. Mr. MILLER, the viewer of the Stafford Main Colliery, who said in the first instance that he did not consider the firing of a shot with the Stephenson lamp was an unsafe process, on being pressed by Mr. MAULE, who appeared on behalf of the Government, said he did not consider it a safe or prudent thing to fire shots whilst the men were in the pit, especially since the explosion at Swaithe. He also said the Barnsley and Silkstone beds were noted for sudden outbursts of gas in some form or other. Surely, then, with such knowledge as to the seams named, it does appear the very height of folly, if not of something a great deal worse, to invite an explosion by the use of powder, which, when exploded, was to all intents and purposes a naked light.

Mr. JAMES WILSON, the manager of the Oaks Collieries, a most experienced viewer, went a good deal further, and said that at his place a shot had not been fired for nine years, so that they went on the principle of preventing the possibility of gas igniting from a shot rather than trying to take means for rendering powder as harmless as human means under such circumstances could do. As to the accident, he gave it as his opinion that the gas ignited in the first goaf, and communicated the flames to the drift. He also considered that before a shot was fired all the men should be out of the pit. He thought it was like leaving safety-lamps in a mine and not locking them where the use of gunpowder was continued in such a mine. It was useless, he continued, locking up the safety-lamps and leaving in the pit a naked light in the shape of powder. Here we have abundant testimony of the hopelessness of any method or system being adopted by which powder can be used with safety or rendered harmless in the fiery mines of South Yorkshire. It is, then, not too much to ask that as soon as Parliament meets the Home Secretary will supplement the last Bill for the Regulation of Mines by adding a clause prohibiting the use of powder in certain mines? Had this been done last session, as we strongly urged it should be, and so strongly supported as we were by Mr. WARDELL, not only in his reports but in personal communications with us, we should not now have to deplore the loss of some 150 or 160 lives. We should also like to know whether the majority of the Inspectors who reported during the present year in favour of the use of powder in mines, still adhere to their opinion, and what sacrifice of life, hundreds or thousands more, would be required to lead them to change it? The Home Secretary, we have very little doubt, will not again ask them for an opinion on the subject, but act upon his own, and in the interests of the working miners, ensuring them greater safety than they at present enjoy by acting in the manner we have pointed out.

There is another matter connected with the explosion at Swaithe Main which we must revert to. That is the provision to be made for the widows and children of the men who were killed. It appears that the appeal made to the public has not been responded to as it was thought it would be, for the amount of money received has been very small when compared with what will be required, and is barely sufficient to meet the present pressing wants. The reason for this is obvious, and we pointed it out long ago. At the present time there are large balances held from previous funds, including 7000*l.* at the Mansion House, and about 3000*l.* sent into West

Yorkshire some eight or nine years ago, being a portion of the Hartley Fund surplus. In addition to that the trustees of the Oaks fund, at Barnsley, will have a balance in hand after claims is met of from 15,000*l.* to 20,000*l.* With a full knowledge of these facts, it is not surprising to find the public refusing to subscribe until it is known what is to be done with such large sums. There was a meeting of the Mansion House Committee of the Oaks Fund a few days ago, but we have not heard that they sent down immediately, as they might have done, the money in their hands.

The Barnsley trustees have been appealed to, but they appear to see difficulties in the way of parting with any of the money they hold. Where there is no inclination, of course there will always be difficulties; on the other hand, where there was a desire to liberally aid the sufferers, nothing could really be easier. An application by post might easily be made to all the subscribers asking whether they would agree to the surplus being handed over for the benefit of the widows and children of the poor fellows killed at Swaithe. Here is an easy way of getting out of the most serious part of the difficulty. Then as to the amount to be handed over. The services of an actuary might easily be called in, and he would soon tell the sum required to meet all the claims on the fund, and that, and say a couple of thousand pounds more, ought only to be kept in hand. All these surpluses, then, would form a sum sufficiently large to maintain the widows and children. If something like this is not soon done we feel assured that public opinion will indignantly denounce the trustees who have shown so little sympathy for the large body of sufferers at Swaithe, and who appear to hold to the money entrusted to them with as much tenacity as if it were their own. In the meantime the poor people who have lost their husbands and are burdened with families are likely to suffer in consequence, and be dependent on parish relief; in fact, only on Tuesday one of the widows applied to the Barnsley Board of Guardians for relief. As a matter of course many others will quickly follow unless something is immediately done. This we fully believe will not be tolerated, but will raise an amount of indignation against certain persons on the part of the public that will not be easily put down.

TIN AT THE ANTIPODES.

Gold and copper have for some years been worked with more or less success in the Australasian group of colonies; and now tin mining is an industry which appears to be making considerable progress in the various members of the Australasian group. Queensland, New South Wales, and Tasmania are all well off for tin. From Tasmania the last mail has brought us details of some little interest with regard to the utilisation of the tin ores of that at last slightly progressive colony. The tin deposits of the north-west, the north-east, and the east coasts of Tasmania are all being turned to more or less account. At Emu Bay there were at the last dates from Launceston some 200 men at work on a tramway which is being constructed by the Van Diemen's Land Company; and a road as far as Hampshire Hills had been constructed and made passable for teams, so that transport by pack horses—a tedious and costly mode of transit—was expected to be discontinued. The Mount Bischoff Company, we are also informed, had sent down only a few tons of ore, but the company had on hand a large quantity of ore, and was only waiting for the roads to improve before delivering it. The Stanhope Company was proceeding with its furnaces, but was much hampered by bad roads and the necessity of packing everything. At Mount Cameron there were upwards of 100 men at work, without counting those further inland, and at Mount Ringarooma. The principal companies at work were the Prince of Wales, Mount Cameron, Enterprise, Garibaldi, Victoria, Moore's, Campbell's, and Smith's Extended, all of which were considered to have pretty good prospects before them.

At Upper Ringarooma there are likely to be some very rich claims, but at the last dates bad roads, or rather want of roads, was a sad drawback to their development. One company at Upper Ringarooma—the Globe—had got out 23 tons of ore since July, and on some claims 1 cwt. per man per day could be obtained. The Launceston and George's Bay Company, at George's Bay, had raised upwards of 7 tons of ore since they started, and their prospects were considered excellent. The total quantity of tin ore purchased by the Mount Bischoff Company up to date was rather more than 67 tons 6 cwt., for which the company had paid 311*l.* The Mount Bischoff Company had shipped 45 tons of smelted tin in ingots to Melbourne for transhipment to England, and at the last dates the company had about 25 tons on hand. One enterprise—the Tasmanian Tin and General Mining Company—formed to work some sections at George's Bay has not been very successful. The company discontinued operations at the close of August, finding the ore too fine to pay for sluicing. An extraordinary meeting was held in October to consider whether the company should be wound-up or whether the shareholders should purchase or amalgamate with some other claim. It was stated at this meeting that three offers of properties had been made to the company—one from the Ringarooma Company, one from a Mr. LITTLE, and one from the holders of a claim known as the Sextus. It was resolved to obtain reports as to the value or otherwise of these claims before proceeding any further with regard to them.

The details which we have been summarising are not without considerable interest, showing as they do—first, the existence of considerable tin resources in one at least of our Antipodean dependencies; and, secondly, the very considerable difficulties which attend their utilisation. There can be little doubt that New South Wales and Queensland—and probably, also, other parts of Australia proper—are quite as well endowed with tin as Tasmania; and there is equally little doubt that it is no easy matter to turn the mineral resources of all the Australasian colonies to adequate account. Want of labour, want of capital, want of communication—these are the three great difficulties which check tin mining, and which also retard material progress generally in the Australasian group. The first obstacle can only be removed by time and patience. As regards the second, capital has, no doubt, a tendency to accumulate at the Antipodes; but the outlets opened out for its employment are practically illimitable, so that the supply falls to some extent short of the demand. As regards the third impediment, the value of railways is fully understood and appreciated by our Australian friends, but railways cannot, of course, be made in a day. However, upon the whole, the Australias advance in mining, as they advance in well-nigh every other department of human effort.

MR. MARK FRYAR, F.G.S.—A telegram from Rangoon announces that Mr. Mark Fryar, mining engineer to the Indian Government, died in the middle of November, whilst travelling by steamer from Moulmein to Rangoon. Mr. Fryar was an old and valued correspondent of the Mining Journal, and was personally known to many of its readers through his long connection with the mining schools of Bristol and Glasgow. He enjoyed the respect of every student at both of those institutions, and his death will be much regretted by a large number of friends.

THE BELGIAN IRON TRADE.—At the last meeting of the Charleroi Association of Ironmasters (Association des Maitres de Forges de Charleroi) it was resolved to establish a special metallurgical journal devoted to the protection of the interests of the trade. The editorship has been entrusted to Mr. Jules Des Essarts, a gentleman well acquainted with the trade, and of considerable literary experience.

COAL AND IRON IN THE UNITED STATES.—The El Dorado Canyon Coal Company has under consideration the construction of a narrow-gauge railway from the mine to Carson, Nevada. The production of anthracite coal in Pennsylvania to Dec. 11 this year amounted to 19,268,977 tons, against 19,217,590 tons in the corresponding period of 1874, showing an increase this year of 51,387 tons. The production of bituminous coal in Pennsylvania to Dec. 11 this year amounted to 3,702,713 tons, against 3,392,219 tons in the corresponding period of 1874, showing an increase this year of 330,494 tons. The combined production of anthracite and bituminous coal in Pennsylvania to Dec. 11 this year was thus 22,971,690 tons, against 22,610,809 tons in the corresponding period of 1874, showing an increase of 360,881 tons this year. The coal traffic of the Philadelphia and Reading de-

clined in the year ending Nov. 30, 1875, to the extent of 843,357 tons, as compared with the year ending Nov. 30, 1874. English rails are quoted in bond at New York at \$35 to \$36 per ton gold; American rails are quoted at the works at \$45 to \$48 per ton currency.

MINING REFORMS IN TURKEY.—The translation of a well considered address from the Mine Adventurers to the Grand Vizier of Turkey is given in a recent number of the “Levant Herald.” The nature of the complaints made and remedies suggested will be understood from an article on the subject in another column of this day's Journal.

IRON WASTE.—Successful efforts have recently been made in America to introduce the process long since turned to good account at Sechshaus, near Vienna. Iron and tin-plate scraps are reconverted into valuable merchantable products. From all tin-plate and soldered articles the tin is first separated, and the iron is subsequently melted into a very high quality of metal. In the course of the process various by-products are obtained, which pay all working expenses, so that the value of the tin and iron is all clear profit.

WIGAN MINING AND MECHANICAL SCHOOL.—A public meeting was held in the Council Chamber, Wigan, on Friday, Dec. 24, Mr. Alfred Hewlett, managing director of the Wigan Coal and Iron Company, in the chair, having for its object the extension of the above-named school in its sphere of usefulness. This school, now in existence 18 years, has been doing valuable work amidst the artisan class of the district, and is one of the most important and successful institutions of the kind in the kingdom. The country being now fully awakened to the necessity of imparting to youth, after elementary education has been completed, technical instruction, to enable our manufacturers to keep pace with foreign competitors in the markets of the world, have for years past experienced the great advantages secured by scientific training to their managers and workpeople. It is proposed to extend the above-named school with all the latest improvements in models, diagrams, specimens, fossils, and chemical apparatus, the teaching of mining geology, mechanics, machine construction and drawing, steam, chemistry, and other kindred sciences by establishing in Wigan suitable buildings (including a laboratory and museum) for the permanent occupation of the classes connected with the school, and for pupils studying art and design. The meeting was a most important one, the whole of the Wigan coal trade being represented, and an executive committee appointed to carry out the objects in view. The cost of the institution it is estimated will not exceed 12,000*l.*, including the site, and the annual outlay required will not, it is expected, exceed 450*l.* Towards the provision of these funds it is proposed to raise subscriptions under two heads—towards the building fund and towards the yearly expenditure. Already subscriptions have been spontaneously promised to the building fund amounting in the aggregate to 2050*l.*, the promised annual subscriptions being 178*l.* The honorary secretaries to whom communications connected with this extensive scheme should be addressed are Messrs. Maskell Peace and G. L. Campbell, of Wigan.

REPORT FROM CORNWALL.

Dec. 30.—The wheel of time has once more come full circle, and we are again on the eve of a departing year, ready to take stock of the past and look forward to the future. The year 1875 brought with it little encouragement for mining enterprise that we should profess to regret its close. Nor does it supply us with that confident immediate hope that we could desire. But still it is not all barren, and there is at least one lesson, and that a very important one, which we can draw from it. We now know the very worst that foreign competition can do, and can form a fair idea of what we have to expect in the future. And with that knowledge clearly before us we can confidently say, as the result of past and dear-bought experience, that the vitality of Cornish mining is sufficient to enable it to withstand even the severe pressure thus entailed; and that given increased economy in working and production, which in several points means the introduction of improved mechanical appliances and other processes, Cornwall can hold its own still. We are as yet merely in a transition state between the old and the new. Signs of progress are visible in several directions, and we cannot doubt that ere very long the battle of competition in cheapness of production will be fought out by our home mines upon more favourable terms.

When the year opened there was a very confident expectation that a rise in the tin standard was close at hand. There had been no official rise since Oct. 14, though rather higher prices than the figures named were current; 1874 left the nominal standards at 90*l.* for superior common, and 92*l.* for superior fine. Unlike 1874, the first few days of 1875 redeemed expectation. January had scarcely opened when a rise of 3*l.* was announced, and all seemed fair and hopeful. Surely, it was thought, the tide had turned. But before the month closed there was a recurrence to the old prices, and although at the beginning of February there was a rise of 2*l.*, thereafter drop succeeded drop, until in the first weeks of March the standards stood at 84*l.* and 86*l.*, a fall of 6*l.* as compared with the corresponding period in the previous year. At the end of the month there was a little spurt, caused by a rise of 2*l.*, but it did not last long, for in April there was a corresponding drop. From that time until July matters looked increasingly dull. Then came a drop of 2*l.* to make matters still worse; and, finally, although there was no further reduction in the official quotation, before the end of the month the prices were quoted at 74*l.* and 76*l.*, for no higher terms were to be had. All things considered, tin mining at this juncture was more depressed than it has been during the present generation. There have been lower standards, it is true, but then the outgoings for materials and labour were not so heavy. However, a reaction, fortunately, was not far off. There was an advance of 2*l.* on Aug. 10, and this was speedily followed up by a couple more, so that the standards were nominally raised to 80*l.* and 81*l.*, and even 3*l.* or 4*l.* in excess of these amounts were paid. Naturally there was considerable animation in mining circles, and once more it was thought that the better day had dawned. On Sept. 23 the standards were officially put up to 82*l.* and 83*l.*, and for a time all went fairly well. But November brought a drop of 4*l.*, and December, though the Malayan difficulties had inspired hope, instead of making matters better made them worse; another fall of 2*l.* bringing the standards back to 76*l.* and 77*l.*, 2*l.* and 1*l.* respectively only above the lowest point of the 12 months, and 14*l.* and 15*l.* below the prices with which 1875 commenced.

What the new year will have in store for us who can say? It must be a bold man who would venture to predict, though there is not wanting considerable confidence. So far as we are enabled to judge, the production of tin has fallen off, though probably not to any very material extent. There has been a considerable decrease during the year in the number of mines in work, which were stated in March last by Dr. Foster at 212 in Cornwall and 67 in Devon. Nearly three-fourths of these were worked for tin. Since then a good many have been stopped. So far as we are able to estimate, nearly 50 mines have been avowedly or practically knocked during the year, while the new ventures do not muster a fifth of that number. We do not believe, therefore, that at the present time there are 250 mines at work in the two counties, and as the decrease is chiefly in tin mines there must be some falling off in the yield of that metal. In the middle of the year the monthly produce of black tin was calculated at 1157½ tons. It is not so great now, and we should be surprised if the year's output greatly exceeded 13,000 tons. And then, on the other hand, it must be borne in mind that the quantity of tin consumed is regularly and steadily increasing. We have heard little of stocking during the year, except at Wheal Owles, which closes 1875 with a full hutch and a heavy bankers' debt. The mine is doing well as a mine, but whether the stocking of the tin will pay remains to be seen. Capt. Blyns, however, has been lucky as well as plucky before, and may be again.

As in 1874, so in 1875, the course of the copper standard has been far more satisfactory than that of the tin standard, and a higher average has been realised. This is shown very clearly by the fact that, whereas the copper ore sold at the Cornish ticketings in 1875

50,026 tons, against 50,237 tons in 1874, the money received was 254,720*l.*, against 235,459*l.*, or over 9000*l.* from 200 tons less ore. The course of the standard has been singularly fluctuating, with frequent rises and falls, occasionally amounting to as much as 4*l.* and 5*l.* at a time. In August the standard stood as high as 122*l.* 2*s.*, the top figure in 1875 being 117*l.* 19*s.* December leaves the copper very much where January found it, the prospects continuing good.

The publicly declared dividends for the year were, subject to some small variations on account of forfeitures of shares, &c., as follows—

Mine.	Shares.	Per share.	Amount.
Balmaher	11,000	£0 2 0	£2200
Brookwood	4,000	0 10 0	2000
Dolcoath	4,295	2 0 0	8590
East Pool	6,400	0 11 8	3650
Glasgow Caradon	40,000	0 2 6	4682
Gunnislake (Clitters)	10,240	0 4 3	2176
Hingston Down	18,000	0 1 0	900
North Bury	512	0 10 0	256
Penhalva	5,000	0 6 6	1625
Penrathna	43,793	0 0 8	1460
South Caradon	512	7 0 0	3584
South Condurrow	6,123	0 10 0	3062
Tincroft	6,000	1 0 0	6000
West Tolgus	512	7 10 0	3790
West Chiverton	3,000	1 0 0	3000
Wheal Jane	2,048	0 5 0	512
Wheal Prussia	6,000	0 2 0	600
Total			£47,019

This makes 17 dividend-paying public concerns (excluding private ventures), against 19 in 1874, 26 in 1873, and 45 in 1872; whilst the total amount of dividends has fallen from 236,724*l.* in 1872, 87,021*l.* in 1873, and 49,121*l.* in 1874 to 47,019*l.* Carn Brea, Drake Walls, East Balleswidden, East Lovell, Lovell, Old Treburgett, Wheal Kitty, and Wheal Russell no longer appear in the Dividend List, which, however, is re-entered by East Pool, South Condurrow, and West Chiverton. As might have been anticipated, there is a general falling off in the tin mine dividends, but there is a general advance in the dividends of the copper mines by way of compensation.

The Dividend List, however, does not fully indicate the course of events generally as affecting individual mines, inasmuch as many that do not appear therein are by no means in an unfavourable condition, whilst there are several which, if they have brought no gain to the adventurers, have at any rate entailed no loss. Among these are Botallack, Carn Brea, Herodsfoot, Phoenix, Providence, West Wheal Frances, Wheal Kitty, and Ding Dong. Nor where calls have been necessary have they, as a rule, been heavy. Prices are better in established mines, as a rule, than 12 months since. All this speaks well for the progress which has been made in economy of working, and augurs good for the future.

Comparatively few of the mines that have stopped have been of much importance, but there are some losses that are much to be regretted—those of St. Ives Consols and St. Just Amalgamated, for example. Crenver and Abraham, which has had a very chequered history, is now passing through another transition period, and it is too early to predict whether it will survive or not.

There have been no great prizes for the year, except to working miners, for the number of lucky "starts" has been quite unusual. West Chiverton has come to the fore again, and, having called up 6000*l.* during the year, has returned 3000*l.* in dividends, and appears likely to continue dividends for some time to come. Another mine in which perseverance is being rewarded is West Wheal Seton, which from 10*l.* a share rapidly ran up to 80*l.*, and is now selling at equivalent to 84*l.* Carn Camborne, which was sold by the adventurers, has turned out luckily for the buyers, who immediately found a capital course of ore in the bottom of the engine-shaft, and, as a result, have netted very handsome profits. Dolcoath, which appears able to withstand any assaults, has proved in the great richness of its bottom levels that there is no reason to fear that our mines must fall off in depth.

We cannot say much for level mining in the district during the year. The one bright spot is the resuscitation of West Chiverton. Old Treburgett no longer retains its place in the Dividend List, and the efforts made to revive Wheal Wrey, Lulcott, and Trelawny have hitherto resulted in more controversy than work. On the Tamar matters are even less lively than they were this time last year, but there does appear a chance of revival in the famous and wealthy Combe Martin district.

So far the expectations held out that Cornwall would become a great iron-producing county have not been realised. There has been a considerable amount of iron ore raised it is true, but only a very small proportion of what might be, especially if the Great Perran lode was developed. The Cornish Consolidated Iron Mines Corporation has been in difficulties—in fact in Chancery—and so far all the efforts made to reconstitute it on a working basis have not had a practical issue. Now, however, we hear that all is arranged, and that long operations will be carried on with vigour. May it be so. There can be no question that hitherto the difficulties have not been in the mines themselves, but in the way they have been dealt with.

Special attention has been of necessity directed during the year to the question of coal supply and consumption, which is of the most serious import in connection with the welfare of mining. When 1874 opened the heavy rains had caused a number of mines to be seriously hampered with water, especially in the neighbourhood of St. Just, and unfortunately just at this time when the demand upon the pumping power of the engines were at their highest coals began to get scarce, consequent upon a succession of heavy gales which delayed the arrival of the colliers. Then when the water was being overmastered, but while the water charges still continued exceptionally heavy, there came the lock-out in Wales, which speedily caused the coal to advance 3*s.* per ton. This was a very serious matter, especially as no one could foresee how long the struggle would last. Fortunately, the worst forebodings were not realised, and May saw coals down again to 17*s.* 3*d.* and 18*s.* a ton. But the coal question has not the less continued to occupy attention, and Mr. Rule in his advocacy of free dealing as against merchant supplies has kept it prominently forward. The general feeling appears now to be in favour of the plan which Capt. Teague has for some time adopted—the importation of coals by the miners themselves, either singly or in union. But the time, unfortunately, has not yet arrived for our miners to work together freely in such matters; nor, by the way, has Capt. Teague, jun., yet been enabled to carry out his suggestion that there should be an association of mine managers to discuss matters of mutual benefit. But to return to the coal question. If it is important that coal should be bought as cheaply, quality being considered, as possible, it is equally important, to say the least, that they should be economically used; hence considerable attention has been paid to the character and performance of our engines.

Stubbornly though the controversy has been waged, it seems clear, all things considered, the Cornish pumping-engine is that which is best adapted to meet the conditions and needs of Cornish mining, but it is much to be doubted whether the engines are, as a rule, worked with the greatest efficiency. No doubt there are many causes which have contributed to the marked decline of duty, for which neither the engines nor the engineers can be held responsible. But there are others that should not exist, and we are glad to know that Mr. Basset has led the way in a thorough examination of the engines on the mines of which he is lord.

The china clay trade has had its period of depression. In July the prices of the inferior qualities had dropped from 16*s.* and 17*s.* per ton to 12*s.* and 13*s.*, and, as a consequence, an attempt was made by the employers to reduce wages. This led to a strike, and in the neighbourhood of St. Austell there were serious apprehensions and disturbances. However, happily these were averted by judicious action, and the masters having given way the men went to work again, not, however, before they had formed a Clayworkers' Union. During the year machinery has been introduced for grinding the china-stone, which is then sent away in barrels, like the superior sorts of clay.

In the absence of any great Government or public works in hand the granite trade of the district has been quiet, though in the course of natural development a good deal of business has been done, and Cornish granite now finds its way to every part of the world, even to the new docks at Bombay, the foundation stone of which the

Prince of Wales laid the other day, whilst it has actually rivalled the Scottish on its own ground at Ayr. The slate trade has been moderately active, but will be greatly extended whenever the North Cornwall Railway is made.

The local scientific societies—the Royal Cornwall Geological, Royal Institution, and Royal Cornwall Polytechnic Society, with the Miners' Association—have done good work during the year, though the last named has suffered, as usual, from the want of adequate support. The amount of useful work it accomplishes with the small means at its disposal is very remarkable; and a new field of usefulness has been opened during the year in its being made the medium of the handsome awards offered by Mr. Basset (with the view of stimulating mining enquiry and research) for the discovery of new mineral products, the utilisation of some already known whose value may not be recognised, or the suggestion of practical methods of making useful minerals which are now rendered partially, or wholly, valueless because of their associations.

As to the Royal Cornwall Polytechnic Society, its exhibition for 1875 was the best it has had for several years, and it was notably strong in that most useful of all its departments—the mechanical section. Among the machines introduced by its means to the county was the diamond drill of Major Beaumont, M.P., the Ingersoll and Levet rock borer, Warrington's compressor and direct-acting pumps, Lavey's compound differential engine, Holman's condensers, &c. But after all the chief utility of the meeting lies in the fact that at it Mr. Basset announced his intention of giving, with munificent liberality, 200*l.* towards a prize of 500*l.*, to be given to the rock-borer which should be found in practice to be thoroughly adapted to the conditions and necessities of Cornish mining. Since then Lord Roberts, who is always ready to aid a good cause, has added 100*l.*, and we may hope ere long to see some tangible results.

An attempt has been made—or rather, perhaps, should we say is being made—to introduce boring-machines into our mines. In the earlier part of the year the Darlington borer was introduced at Wheal Agar, but so far as we can judge the experiment does not appear to have proved wholly satisfactory. It by no means follows that because a rock-drill has answered elsewhere that, therefore, it must answer in Cornwall. The Cornish rocks are for the most part very hard, the general conditions are peculiar, and then—for the whole truth should be told—there is a considerable amount of prejudice to overcome. Since the Darlington was set to work the Barrow borer has been introduced at Dolcoath. There, thanks to the perseverance and skill of Capt. Josiah Thomas and Mr. Loam, very considerable difficulties have been overcome, and the machine is now working with an amount of success which warrants us in saying that if the problem is not yet solved at all events 1875 has done more towards its solution than all times preceding. Capt. Tregay has invented a diamond borer, but we have not heard of its performances.

In other respects, as connected with mechanism, there is little to note. Mr. Husband's pneumatic stamps, which in their most improved form were shown at the Polytechnic Exhibition, are working with excellent results at several mines; but, with that remarkable conservatism of operation so characteristic of Cornish mining, the old form still abides in general use. Mr. Sholl's direct-acting steam-stamps are, however, it is understood, to be tried at East Pool.

There has been what may fairly be deemed considerable advance made in the matter of developing our mineral resources by means of chemical processes applied to low-produce and argenteiferous ores. The operations in this direction of Dr. Emmens, at and near Calstock, were greatly interfered with by financial disaster, but it is now understood that arrangements are in course of completion by which he will again be able to proceed, and it is hoped to complete success. The value of his process is, however, whatever hindrances may have occurred in his own case, believed to have been fully tested by the success of the operations at New Great Consols in the same district under Capt. R. Pryor. Here reduction works on a very large scale have been erected, and are in active operation. The success achieved is stated to have been unequivocal, and as there is an abundance of low-produce ore in the locality there is no reason under these circumstances why this new branch of mining industry should not flourish for many years to come. Chemically, there has never been any doubt that the process—or rather the processes, for there is more than one—would succeed, but hitherto the great doubt has been whether they would prove peculiarly remunerative. At New Great Consols it is claimed that this has been distinctly shown to be the case.

And this leads us to speak of the arsenic trade, which has been remarkably developed during the year. Indeed, the great increase in the demand for, and value of, arsenic has been one of the most cheering features of the twelvemonth. Early in the spring, when tin had fairly entered upon its downward course, arsenic ran up several pounds, and thus to some extent helped to counteract the depression in the main article of produce. Practically, the whole of the arsenic which is produced in the kingdom comes from Devon and Cornwall—a considerable quantity from the Camborne and Illogan district, but by far the largest proportion from Gunnislake and its neighbourhood, where the largest arsenic works, not only in England, but in the world, are—those of the Devon Great Consols. The prominent position which arsenic has thus taken, and the fact that the two counties can furnish what is practically an inexhaustible supply is one of the most cheering features of the year.

Early in January special attention was directed to this large production of arsenic, and some little alarm caused to the public—needless so far as they were concerned—by the discovery of a diabolical attempt to poison the employees of the West of England Chemical Works, near Gunnislake, by throwing a quantity of arsenic into the water-tank from which they drank. Some scores were more or less affected, and the wildest excitement for the time prevailed, but, happily, no one died. It was clear that the arsenic could not have found its way into the tank by accident, but nothing was ever discovered of the perpetrator, though there were very grave suspicions. Of accidents proper there have been, perhaps, about the average, though there has been a marked difference in the number of those attributable to defective fitting and care of boilers—a result directly traceable to the excellent manner in which the salutary provisions of the Mines Regulation Act have been enforced by the Government Inspector, Dr. C. Le Neve Foster. Still, there has been a considerable loss of life, and in some cases of a character that can hardly be considered non-preventable.

The most fatal week was in August, when by three separate casualties five poor fellows lost their lives. One of these accidents was caused by the sudden irruption of water from some old workings in St. Aubyn United, to which the pore concerned had holed. A still more singular one occurred in the following month at Great Wheal Lovell, when several men were overcome by foul air caused by want of adequate ventilation, and one died. We must place here also, in its association with mining, the sad explosion of the Safety-Fuse Works belonging to Sir F. M. Williams, M.P., at St. Day, by which several females lost their lives.

The obituary of the year is a long and serious one. We have lost in Mr. W. J. Henwood, F.R.S., F.G.S., the highest scientific authority on metalliferous mining, a gentleman who had studied the phenomena of metalliferous veins in every part of the world, and whose name was known and honoured in the scientific circles of every civilised country. Sir Goldsworthy Gurney, whose labours in connection with the steam-blast made him noted, died at his residence near Bude at a very advanced age. We have lost also the late Vice-Warden of the Stannaries, Sir Edward Smirke, who was well known in legal circles, and as an antiquary. Death has likewise carried off Mr. Tregonning, well known as the managing partner of the Bischoe Smelting Works. Mr. James Dennis, of Mangotham House, Redruth, died suddenly whilst at dinner the day before he was to have presided at East Pool account. Mr. W. Shilson, of Tremough, is also among our losses.

The Cornwall Minerals Railway has not had a very lively time. A great deal of china-clay has been carried, seriously to the damage of the traffic of the Cornwall line; but, in default of the large quantities of iron ore expected from the Perran Mines, the traffic has not been at all what was anticipated. The future of the Minerals Railway, in fact, very much depends upon the future of these mines. Not entirely, however, for some time in the coming year

they will be opened for passenger traffic, and there are several new schemes afloat which in the end will bring them into direct connection with the narrow-gauge extensions, which the Midland and London and South Western Railways are pushing on into the West. The Great Western Railway has during the closing months of the year arranged to acquire the Bristol and Exeter and South Devon Railways. It will thus become sole owner of the Cornwall and West Cornwall lines; and what with the extra efficiency thus introduced, and what with the sharp competition which there is sure to be with the narrow-gauge interests, it is likely that in railway matters the two counties, and Cornwall especially, will be far better served than they ever have been yet.

TRADE OF THE TYNE AND WEAR.

Dec. 30.—The disputes as to the rate of wages at the collieries in Northumberland and Durham are expected to be settled shortly, as the arbitrators are now engaged in the work. The accountants, Messrs. Benson, Eland, and Co., have a number of clerks employed in getting the necessary information from the books at the various collieries. The demand for house and gas coals continue fair, but all other kinds are a drag. Many of the works are on short time, as the masters will not at the present time make any stocks, and but little work will be done during the present week. More works are to be laid off in Durham, and when it is found possible to do so small pits are stopped, and the coals are drawn at one central establishment. Numbers of miners are leaving this district for the midland and other parts, and also for America.

There was a pretty good gathering at Middlesborough, on Tuesday, and a rather better feeling prevailed. The late demand for pig-iron for other districts has so limited the supplies that makers have been a great deal firmer in their rates of late. Last week we recorded an advance in prices, and the market shows a still further increase in rates. Quotations are on the basis of 52*s.* to 52*s.* 6*d.*, No. 3, and 50*s.* to 50*s.* 6*d.*, No. 4 forge. The chief run at present, however, is on No. 3. There is still a good shipping enquiry, and purchasers find it difficult with the limited stock to get all they require. The finished iron trade, though no better at present, shows rather better symptoms, judging from the enquiries which have been made, and it is hoped that orders will come to hand next year. There have been a few orders placed for plates and bars, though no actual improvement in the rail trade can be recorded. Rails are 6*l.* 15*s.*; ship plates, 7*l.* 10*s.* to 7*l.* 15*s.*; common bars at 7*l.* 2*s.* 6*d.*; puddled bars, 4*l.* 15*s.* to 4*l.* 17*s.* 6*d.* If pig-iron continues to harden in price there will be more furnaces put in blast. The Cleveland mine-owners have met a deputation of the miners, and the dispute will, without doubt, be referred to arbitration, as suggested by the men. The finished iron wages settlement has not yet been arranged. Within the next week the Board of Arbitration is expected to meet. The coal trade is quiet. Prices unchanged. Coke keeps firm, at 12*s.* to 13*s.* for best furnace sorts.

CO-OPERATIVE IRONMAKING.—The North of England Industrial Iron and Coal Company (Limited) half-yearly report was issued to the shareholders on Thursday. Several co-operative societies are large shareholders in the undertaking, which has blast furnaces and rotary puddling furnaces at Carlton, near Stockton; coal mines at East Howle, in the county of Durham, and ironstone mines at Ailebury, in Cleveland. The directors regret being unable to report any improvement in the general condition of the iron and coal trades during the past six months. The impossibility of realising remunerative prices for malleable iron in the present state of trade has led them to a temporary suspension of operations at the forge in Carlton Iron-works; and, although the experience recently gained has not been free from some additional loss, it has strengthened their confidence in the ultimate success of the system (Crampton's) of mechanical puddling which they have adopted. The blast furnaces have worked regularly, and a small profit has accrued. At the collieries the Brockwell seam of excellent quality coal is reached by a new shaft, and the thickness—above 4 ft.—is greater than anticipated, exclusive of the top splint coal. At the Hutton Pit the output exceeds 400 tons daily, with increasing demand at fairly remunerative prices, and arrangements are in progress for providing the increased number of houses needed for the complete development of the new undertakings of the company. Some capital had been sacrificed by abandoning the South Belmont Ironstone Mines in Cleveland, but more serious and continuous loss is thereby avoided, and they consider the sacrifice in a great measure made up by value of the lease of Ailebury Ironstone Mines, which continue to give a profitable return upon the capital invested. In conclusion, the directors regret the present precarious state of trade will not allow them to recommend an interim dividend on preference shares, but they believe the extreme limit of the depression has now been reached, and they look forward hopefully to a revival of trade in the spring, which will essentially improve the position of the company, and justify a resumption of work under favourable conditions at Carlton forge, in conjunction with the new plate mills.

REPORT FROM DERBYSHIRE AND YORKSHIRE.

Dec. 30.—There is little to report as to the state of trade, for the very good reason that comparatively little has been done during the week so far, owing to the holidays. There is, however, little doubt but there are now sufficient orders in hand to keep the works fully employed. At some of the collieries a fair tonnage of coal has been raised, but not up to the average. This, however, will not be any inconvenience, seeing that the mild weather prevailing will make a material difference in the consumption of house coal; and, should it continue, the London consumers in particular would be greatly benefited, for prices must come down. In Sheffield it is not likely that work will at many places be resumed during the week, for not only will the men generally have a week or ten days holiday, but advantage is taken of their absence for the repairing of the machinery and putting down new plant. In South Yorkshire the great event of the week has been the funeral of Mr. John Normansell, the secretary of the South Yorkshire Miners' Association, who was highly respected by all classes, and whose remains were followed to the grave by a vast concourse. An affecting oration at the grave side was made by Mr. Macdonald, M.P. On Monday another body was recovered from the Swaithe Main Colliery, bringing the number of bodies to 138. There are several more, however, still in the workings.

REPORT FROM THE FOREST OF DEAN.

Dec. 29.—As some weeks have passed since anything from here appeared in the Journal, a few lines may be acceptable. Little alteration in the quotation of prices has occurred in this district for a considerable period, if we except one or two reported rises in the price of coal at a colliery or two, which reports, however, did not appear trustworthy, as they were made public by interested parties. A section of Unionists has been agitating for a rise of 2*s.* per ton through the district upon coal, to be accompanied by a 10 per cent. rise in wages; but success is extremely doubtful. Coalmasters, observing the general condition of the country, do not consider that the prospects of the markets would justify any such step at present. The local coal trade, however, is just now and has been for some little time past in an active condition, although its continuance in similar activity is by no means certain.

There is, we are pleased to say, some improvement in the iron business, Messrs. Crawshaw have blown in an additional furnace since our last report, and the Great Western Iron Company intend having another in operation shortly, or as soon as matters can be so arranged. This company has effected very great improvement at their furnaces, and by adopting a Staffordshire method of smelting will save thereby between 3000*l.* and 4000*l.* per annum in cost, by economising the waste gases of the furnaces. The principle consists in having a very high chimney-stack, so as to ensure a good draught, and as the company has erected one 150 feet high, and connected it by cylinders or tubes to the furnace, all the gases which would otherwise ascend from the top are drawn through the cylinders, and economised to produce hot air, &c., and which effects a saving in coal of 10 per day, an important consideration. As by this method there is no flame or gases ascending from the top of the furnace the change in appearance and real comfort is truly astonishing; as compared with the old choking method by smoke and sulphury gases, the cleanly and wholesome condition at present makes observers of the change think of a palace. We thought the amount of capital to be raised in shares (150,000*l.*) a doubtful proceeding, but if the company wisely invests in the local mines and gales for the supply of ore, and construct more furnaces, and continue the careful and scientific system of management, we should not be surprised if in

the course of a few years the concern should be "fat and flourishing," to the joy of the district.

A visit of the manager (Mr. Jarrett) to Staffordshire, to see how the world went round there, led to the introduction of the improved method already specified. And so striking are the advantages that the Forest Crawshays, observant thereof, intend adopting the same at Park End and Cinderford as soon as may be convenient. If this change should be effected the advantages even in a sanitary point of view will be immense to the surrounding populations, as, by economising the waste gases, and carrying the residuum into the sky at a great altitude, it will relieve the people living adjacent and around of what at present is a very great nuisance and annoyance. The system simply adopts a natural law, and what we saw at Sedwley very much confirmed us in an opinion which we have long held—that many, the great majority, of smoky habitations arise from the fact that the chimneys are not erected sufficiently high to invite the natural law into play and effectiveness. As labour has risen so much in value we must look more for science to devise methods to cheapen the cost of production in manufactures. The system was partially tried years ago at Park End, and proved a failure. Next time it will be a success. If science is taken more fully into partnership an advance in prosperity will be secured thereby. We are pleased to know that High Meadow Mines, purchased by Mr. E. Crawshaw, contain liberal supplies of rich ore. The tin-plate works at Lydney and Lybrook have submitted to an inevitable reduction in wages. Other Forest works remain nearly in statu quo.

REPORT FROM MONMOUTHSHIRE AND SOUTH WALES.

Dec. 30.—So far as can be seen the hopes of a change for the better in the Iron Trade held out last week have been confirmed by subsequent events. The Christmas holidays having intervened, however, business has been more or less suspended throughout the district, and of course the usual attention has not been paid to the course of trade. But the new year is anxiously looked forward to as likely to bring with it a different state of things from the present. In regard to some branches of manufacture there is already decided improvement, but it does not yet extend to the finished iron trade, and more especially not to the rail trade, upon which this district more particularly depends. A few weeks will probably enable makers to see more clearly what is in store for them, and it is sincerely to be hoped a more prosperous state of things is at last beginning to dawn upon the district.

The resolutions which were come to in regard to the failure of Messrs. Fothergill and Hankey, the proprietors of the Aberdare and Plymouth Iron and Coal Works, have been confirmed in the London Court of Bankruptcy. The object of the resolutions in question was to preserve the business from disintegration by making it over to a company in which the creditors were to take debentures, and the mortgages to postpone their rights for a certain period. It was hoped that in the end the whole of the creditors would be paid out of the profits of the concern.

There are some slight signs of improvement in the Tin-plate trade, but altogether business continues very dull, and but slightly more active than it was in the beginning of the year.

Little that is new can be reported in regard to the Coal Trade. Few transactions have been entered into during the week, and little work done at the collieries, owing, of course, to the festive season. The week may, in fact, be regarded almost as an entire holiday. An important fact, however, to record in connection with the trade is the award of the Conciliation Board. The terms are liberal, and will no doubt be readily adopted by the men. They are, briefly, as follows:—1. The minimum wages to be fixed 5 per cent. above the rate paid in 1869, and the standards to be—For the steam coal collieries the cutting price of the upper 4 ft. seam in the Aberdare Valley to be the standard; for the bituminous collieries of Monmouthshire and the Caerphilly district, the cutting price of the Mynddylwyn seam and the Tillery seam to be the standard; for the bituminous collieries of Glamorganshire, which includes all the collieries of the Neath and Swansea district, with the exception of the Cross Hands, Cawdor, and Hendre-forgan Collieries, the cutting price of No. 3 Rhondda seam to be the standard.—2. The minimum standard wages to be paid on 12s. per ton for steam coal, 11s. for Mynddylwyn and Tillery coal, and 11s. per ton for No. 3 Rhondda.—3. The minimum to include all extra cost of living and getting coal.—4. The rate to be fixed for periods of six months from Jan. 1; an advance of 7½ per cent. in wages for every shilling advance in the price of coal from the minimum 12s. and 11s. up to 21s. and 20s.—5. The average selling prices f.o.b. at Cardiff, Newport, and Swansea in November and December to determine the wages to be paid in the next six months. Books to be examined for fixing the rates for subsequent half years.—6. The same scale to regulate the reduction of wages from the maximum down to the minimum.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

Dec. 30.—An intimation has been given this week by the colliers on the Dudley side of the district of their intention to give notice for an advance of 1s. per day in the wages of thick-coal men, and of 6d. per day in the wages of thin-coal men, on the allegation that "the advance asked is justified by the condition of the trade." The intimation has come upon the coalowners as a surprise; and although it is highly improbable that a demand so extraordinary will be conceded, the course taken has already had the effect of disorganising business alike in the coal and iron trades of the district. The standard rate for coal in South Staffordshire are already 1s. to 2s. per ton in excess of those ruling on Quarter-day, and the further advance which the wages concession asked for would involve would raise the standard to a point which would impart a most serious check to business. The result of the action adopted by the miners remains to be seen. Local ironstone continues in steady demand, and the rates are well supported.

In consequence of the holidays, we have little to report this week in the Iron Trade. The mills and forges of South Staffordshire remain closed, and few of them will resume operations before Tuesday or Wednesday next. The trade is in a very disorganised state, although prices have increased in firmness, owing to the unsettled condition of the market for fuel. There is an impression that a declared advance in the rates for iron will take place on Quarter-day, but nothing positive on the subject can at present be known.

The following were included in to-day's quotations on the Birmingham Stock Exchange:—Cannock and Huntington Colliery, 2½ prem.; East Cannock Colliery, 100 prem.; Hamstead Colliery, 1½ prem.; Ivy House Colliery, 1 dis.; Mid-Cannock Colliery (20 paid), 20½; Sandwell Park Colliery (10 paid), 29; Spon Lane Colliery, par, sellers; Pellisall Coal and Iron, 4 dis., sellers.

The North Staffordshire Coal and Iron Trades are without alteration this week, the Christmas holidays having put a complete stop to business. Diverse opinions are current as to what will be done with regard to the course of prices on Quarter-day, but the probability is that whatever action is taken will not be fully decided until it is known definitely what course will be taken by the ironmasters in the southern part of the county.

PROCEEDINGS UNDER THE MINES REGULATION ACT.—At Sedgely Police Court, on Thursday—before Messrs. W. H. Rogers and F. A. Homer, Mr. Wm. North, of Dixon's Green, Dudley, being, on Oct. 5, the manager of the Ramrod Hall Colliery, Oldbury, was charged with neglecting to observe the 1st and 5th general rules of the Mines Regulation Act.—Mr. Joseph Baker, charter-master of the same colliery, was also charged with failing, on the same date, to observe the 32nd special rule. A similar charge was also heard against Mr. Thos. Woodall, overman in the said colliery. Mr. Joseph Baker was also summoned for an infringement of the second general rule, and for neglecting to observe the 28th special rule and the 29th general rule. The same defendant was also summoned for an infringement of the 32nd special rule in force at the said colliery, which provides that if the mine at any time is found to be in a dangerous state he shall withdraw the workmen from the mine, or such part thereof, and the competent person appointed for the purpose shall immediately inspect the same, &c., on Sept. 28. In the next case Mr. Baker was charged with neglecting to observe the 6th general rule of the same Act, also of the 3rd general rule.—Mr. Joseph Aston, Barnet Tree Colliery, Tipton, was also charged that on Aug. 24 he neglected to observe the 29th general rule of the Mines Regulation Act, which provides that a competent person shall once in 24 hours examine the state of the external machinery. The above summonses were taken out at the instance of Mr. J. P. Baker, Government Inspector, attention having been called to the management of the mines through an explosion which resulted in fatal consequences, about two months ago. Mr. T. Walker, solicitor, Wolverhampton, prosecuted, and Mr. Underhill defended Mr. North. All the defendants pleaded guilty, and expressed regret, and the evidence was formal. The Bench inflicted the following fines:—Mr. North 10s. for each of his offences and expenses; Mr. J. Baker, three several fines of 40s. and costs, and four fines of 5s. each in the other cases; Mr. Aston, for his infringement of the 29th general rule, 5s. and costs; and Thomas Woodall 40s. and costs. This last defendant was an "overman" under Mr. Baker.

CANNOCK AND HUNTINGTON COLLIERY COMPANY.

The directors have issued the following report to the shareholders:—The directors desire at the close of the year to lay before the shareholders the following statement, which they trust will be deemed satisfactory as regards the position and prospects of the company:—

Since the last general meeting the Diamond Rock Boring Company have discontinued their boring operations, having attained a depth of 218 yards 10 in. The result of the boring, as will be seen by the accompanying letter of Messrs. North and Son, the company's engineers, appears to show that the known measures of the Cannock coal field exist underneath the land leased to the company, and that

they lie there at a less depth than had by some mining authorities been at first conjectured.

To prove the actual existence and depth of the "deep coal" by boring would have entailed on the company a very heavy outlay, and a further indefinite delay in the prosecution of their works. The directors, therefore, after carefully considering the circumstances with their engineers, determined to discontinue the boring, and to make preparations for sinking with as little delay as possible.

As the boring had shown the existence of a greater quantity of water in the upper beds to be passed through than in any other sinking in the district, the directors deemed the circumstances under which the works were to be undertaken as exceptional, and requiring the most careful consideration before their commencement.

Among the various plans for sinking through water-bearing strata, which were submitted to the board, was that known as the Kind-Chaudron method, being one that has to a great extent been adopted in Belgium and France. This plan, which seems to have great advantages from the absence of uncertainty in its operation, appeared to offer to the company, at no greater than the ordinary cost, the prospect of overcoming with facility the very serious difficulties which must be encountered in sinking in water-bearing strata of such a nature as that existing at Huntington.

The directors, therefore, after having satisfied themselves by personally inspecting various pits in course of sinking in Belgium and France, of the feasibility of the plan, and acting in consultation with their engineers, opened negotiation with Mons. Chaudron, proprietor of the patent rights for this mode of sinking in England.

These negotiations have been concluded, and a contract has been entered into, which, while securing to the company the advantage of the superintendence and direction of Mons. Chaudron, his engineers and necessary workmen, leaves the control of the whole of the expense of the sinking in the hands of the company. The contract also contains provisions giving Mons. Chaudron a direct personal interest in the economical working of his plan of sinking.

A certain time will be necessary for the erection on the ground of the machinery required, and it is expected that the actual sinking will be commenced in the spring. The manufacture of bricks by the company is proceeding, and by the erection of machinery of not at all an expensive character, the directors are now enabled to make bricks of a superior description.

THE SCOTCH MINING SHARE MARKET—WEEKLY REPORT AND LIST OF PRICES.

Owing to the holiday season now set in, the market has since my last report been idle, and movements in prices generally unimportant. In shares of iron and coal concerns, Bolckow Vaughan, B. shows a good advance at 44 to 45; West Cumberland Iron and Steel is again higher, at 14, buyers; Consett Iron Ore also in demand at 19½; Glasgow Port Washington (all paid) has advanced ½; and ditto prepaid, ½; Benhar (all paid) is ½; Ebbw Vale, ½, and Omoa and Cleland, 1s.—all lower per share. Cairnstable and Monkland, preference, are now quoted ex div. In shares of copper concerns (foreign) Tharsis is lower; while Cape is ½ higher, and Huntington, ½. In shares of home undertakings prices are:—Bedford United, 1½, sellers; Gunnislake (Clitters), 63s., sellers; Marke Valley, 3 9-16ths, sellers; New Pembroke, ½, sellers; South Crofty, 15½, buyers; West Esqair Lie, ½, sellers; West Maria, 6s., sellers; Wheel Basset rose at 20 to 25. In shares of gold and silver mines, Emma is 1s. 6d. up per share, and Richmond ½. Frontino and Bolivia continues in demand at 35, but no transactions have taken place for want of sellers. Exchequer lower, at ½ to ¾. South Aurora, 5s. 6d., and Tecoma, 6s., both buyers. In shares of oil companies Young's Paraffin are now quoted ex div., and show a slight reaction after the late good rise. Miscellaneous generally higher, but no important dealings. Milner's Safe quoted 10½ to 10½ ex div., and Newcastle Chemical, 3½ dis., buyers. The Bank rate of discount has to-day been raised 1 per cent.—namely, to 4 per cent. from 3, at which it has stood since the 18th ult. A detailed list of the several days' business follows:—

ON WEDNESDAY last a good business was done. Benhar, 11 to 11½; new shares, 6½ to 6¾. Emma done at 21s., closing 21s. to 25s. Glasgow Caradon done at 1½, closing, buyers, at that: new shares, 20s. to 21s. Glasgow Port Washington done at 4, closing 4 to 4½. Gunnislake (Clitters), 63s., sellers. Huntington done from 25s. to 26s., closing 25s. 6d. to 26s. 6d. Marbella, 75s. to 75s. Marke Valley, 3½ to 3¾. Monkland, 5s. to 5½. Omoa and Cleland done at 54s. and 53s., closing 53s. 3d. to 54s. 8d. Richmond done from 7½ to 7¾, closing, the price. Tharsis opened at 22, declined to 21½, closing, firmer, 21½ to 21¾; new shares, 14½ to 14¾. Uphall Oil done at 5. Young's Paraffin, 8½ to 8¾. Scottish Wagon done at 10½.

HUNTINGTON COPPER AND SULPHUR COMPANY (Limited).—An extraordinary general meeting of shareholders was held to-day (Wednesday). Resolutions were passed:—1. Confirming the appointment of the committee of investigation appointed at the adjourned general meeting on July 30 last, and re-appointing the same a committee of investigation, with powers, as before, to add to their numbers, and take such professional advice as they thought proper; and, 2. Approving and adopting the report of the committee on the affairs and accounts of the company, and the proposal for the recovery of promotion money, bonuses, &c., received by Mr. Wm. Henderson and others in connection with the formation of the company or otherwise. The five gentlemen recommended by the directors were elected directors. The Chairman of the committee of investigation, in reviewing the work of the committee and their report, said the professional assistance they had got had cost them nearly the whole of the expenses in the matter, which are much below what was expected. The accounts on the other side are 1200, and those on this side are expected to be under that sum. The personal expenses of the committee will not exceed 100. He gave notice of the intention to move for the resolution that the company should be put into liquidation, and that the directors should be paid the balance of the expenses of the company, which he said he had fully considered it, and is confident the company shall gain it. He should not be inclined to accept 10s. in 10, to settle it, if offered, so little doubt had he of the company's success.

ON THURSDAY last a fair business was done. Benhar, 11 to 11½. New shares done at 1 6s. 6d., and 5½, closing 5½ to 5¾. Bolckow, Vaughan, A. shares done at 47½. Glasgow Caradon, 35s., closing 35s. to 36s. Frontino and Bolivia, 34s., buyers. Glasgow Caradon, 35s., closing 35s. to 36s. New shares done at 21s. Gunnislake (Clitters), 63s., sellers. London and Glasgow Engineering, 21, buyers. Marbella, 3½ to 3¾. Monkland done at 50s., closing 50s. to 52s. Newcastle Chemical, 3½ discount, buyers. Omoa and Cleland done at 56s. and 55s., closing 54s. to 54s. Richmond shares opened at 7½, sellers, but advanced to 7 10ths, business done, closing 7 5-16ths to 7 7-16ths. Tharsis done at 21½ and 21 7-16ths, closing 21½ to 22. New shares done at 14½. Uphall Oil, 4½ to 5½. West Cumberland Iron and Steel, 14, buyers. Young's Paraffin done at 8½ and 8¾, closing 8½ to 8¾. Scottish Wagon done at 10½.

ON FRIDAY (being Contango-day) a moderate business was done. Arncliffe done at 7. Bedford United, 1½ to 1½. Benhar, 11 to 11½; new shares done at 6 10ths, closing 6½ to 6 10ths. Earle's Shipbuilding Company is unable to declare any dividend this year, the net balance of profit being 4861; at this time last year 6 per cent. was paid. Ebbw Vale, 13½ to 13¾. Emma done at 25s., closing 24s. to 26s. Frontino and Bolivia higher at 35s., buyers. Glasgow Caradon done at 35s., closing 35s. to 36s.; this month's sale of 225 tons, realised 1246½ 14s. 6d., or an average of about 110s. 10d. per ton. Last month's sale of 245 tons averaged 105s. 5d., while the corresponding sales in 1874 and 1875 were respectively, 245 tons at 112s. 7d., and 220 tons at 94s. 7d. Gunnislake (Clitters), 60s. to 63s. Huntington done at 25s. and 25s. 6d., closing 25s. to 25s. 6d. Marke Valley, 3½ to 3¾. Milner's Safe Company has declared a dividend of 10 per cent. for the year ending Nov. 30 last, payable on Jan. 1. New Pembroke, ½, buyers. Richmonds better, done at 7½ and 7½, closing 7½ to 7½. Tharsis done from 21½ to 22, closing at these prices. Uphall Oil, 4½ to 5½. Wheel Basset rose at 20 to 25. Wheel Kitty, 2½, buyers. Young's Paraffin done at 8½, closing 8½ to 8¾. The following are the rates of continuation:—Gunnislake (Clitters), 63s. to 63s. 6d. on Canadian Copper Pyrites, 14. Emma, 1½d. on Glasgow Caradon, 34. on Port Washington, 34. on Huntington, 34. on Marbella, 24. even on Monkland, 34. 4d. 4½d. 6d. on Richmond, 1s. 6d. on Tharsis, 6d. on Tharsis (new), 6d. on Young's Paraffin, 6d. on Rio Tinto. Even: Omoa and Cleland. Backwardation: 5s. on Shotts. The making up prices fixed to-day, compared with those current at last settlement, show the following variations:—Canadian Copper Pyrites, 1s.; Marbella, 1s. 6d.; and Richmond, ½, all lower per share, while the following have each improved to the extent noted:—Gunnislake (Clitters), 3s. 6d.; Huntington, 3s. 6d.; Omoa and Cleland, 1s.; Tharsis, 1½; ditto new, 1½; and Young's Paraffin, ½. Emma, Port Washington, Monkland, Rio Tinto, and Shotts, make up at the same prices.

ON TUESDAY the account opened for settlement, Jan. 13; Monday, Jan. 10, will be the last day; a small business was done. Bedford United, 1½, sellers. Benhar, 11½ to 11¾. New shares done at 6½, closing 6½ to 6¾. East Cannock, 2½, sellers. Frontino and Bolivia, 34s., buyers. Glasgow Caradon done from 1½ to 1¾, closing 1½ to 1¾. 6d. to 37s.; new shares done at 22s., closing 22s. to 24s. The increase of money realised on sales of copper ore by this company during the past year is stated to be 14552. 1s. 3d. over the previous year. Hlogan (Lin), par, sellers. Lochore and Capella done at 5½, closing 5½ to 5¾. Marbella done at 3½, closing 3½ to 3¾. Marke Valley, 3½, sellers. Monkland 7 per cent. guaranteed preference is now quoted, ex div., at 105s. 6d. New Pembroke, ½, sellers. Omoa and Cleland, 53s. to 55s. Richmond shares opened at 7½, and fell to 7 9-16ths, closing 7½ to 7¾. This week's cablegram says:—"Week's net \$39,000." Scottish Australian new shares (last issue), par to 1s. prem. South Wales Smelting and Colliery shares, 1 prem., sellers. Tharsis done from 22½ to 21½, closing 21½ to 22. West Maria, 6s., sellers. Young's Paraffin done at 10s., closing 7½ to 8. These shares are now dealt in, ex div. Scottish Wagon, 10½ to 10¾; new shares 14, 4½ to 4¾.

ON WEDNESDAY a small business was done. Arncliffe, 7 to 7½. Bedford United, 1½, sellers. Benhar done at 11½, closing 11½ to 11¾; new shares done at 6½, closing 6½ to 6¾. Bolckow Vaughan, "A," done at 47½, closing 47 to 48. Cairnstable, 9 to 9½, ex div. Frontino and Bolivia, 35s., buyers. Glasgow Caradon done at 35s. 6d. and 35s., closing at these prices; new shares done at 22s., closing 22s. 6d. to 21s. 6d. Glasgow Port Washington, 4 to 4½. Gunnislake (Clitters), 63s., sellers. Marbella, 75s. to 75s. Monkland, 50s. to 52s. New Pembroke, ½, sellers. 34s. 6d. to 34s. 6d. ex div. Marke Valley, 3 9-16ths, sellers. Milner's Safe, 10½ to 10¾. Omoa and Cleland, 50s. to 52s. New Pembroke, ½, sellers. Richmond done at 7½, closing 7½ to 7¾. South Crofty, 15½, buyers. Tharsis done at 21½, closing 21½ to 22. West Esqair Lie, ½, sellers. Young's Paraffin, 7½ to 8. Scottish Wagon done at 10 9-16ths, closing 10½ to 10¾; new shares, 4½ to 4¾.

The following are this week's prices of some stocks, shares, &c., occasionally dealt in on this market, but not quoted (with few exceptions) on any of the Scotch Stock Exchanges:—Iron, Steel, and Coal Companies: Andrew Knowles and Sons, 24½ to 24½; Bolckow, Vaughan, and Co. "B," 44 to 45; Britannia Ironworks, 10; Cardiff and Swansea Steam Coal, 24 to 24½; Chapel House Colliery, 14 to 14½; Con-

sett Iron Ore, 20½; Gauley Kanawha Coal, 5, sellers; Great Western Colliery, 11½ to 12; Gellybeg Colliery, 9, sellers; Ifton Rhy Colliery, 11½ to 12; Lehigh and Wilkes Barre 6 per cent. first mortgage, guaranteed by Con. & Iron, 24½ to 24½; Llynvi Valley Colliery, 9, sellers; Mersey Steel and Iron, 4½ to 5; Myndy Iron Ore, 2; Newport Abercrom Colliery, 4 to 5; North Lonsdale Iron and Steel, 6 to 6½; Powell's Llantwit Colliery, ½ to 1½; Scottish Australian new shares, ¼ to ½; Ulverston Mining, 10½ to 11; West Cumberland Iron and Steel, 14; Whitehaven Iron, 3½—Copper, Lead, Zinc, &c., Companies: Bedford United, 1½ to 1½; Bensberg Lead, 3½ to 4; Bowdon Hill Manganese, 5½, sellers; Cook's Kitchen, 2½ to 3; Copiapo Mining, 3½; Denbigh Consols, 2, sellers; Dolcoath, 37 to 39; Drake Wages, 7½, sellers; East Cannock, 1½ to 2; East Wheel Grenville, 1s. 6d., sellers; Elgar, 1, sellers; Great Laxey, 15½ to 16; Great West Van, ¼ to ½; Gunnislake (Clitters), 3 to 3½; Hingston Down, ¾ to 1½; Killbreth, ¾; Old Talgough Lead preference, 10, sellers; Marke Valley, 3½ to 3¾; New Consols, 1½, sellers; New Pembroke, ½, sellers; New Quebrada, 4; North Hendre Lead, 3 to 4; Parys Mountain, ½ to ¾; Penrith, 9s. to 11s.; Prince of Wales, ½ to ¾; Plynlimmon Lead, ¼; Rio Tinto, 6½; Snowbrook, 5, sellers; South Cundorow, 5½ to 5¾; South Roskare, 1½, sellers; Van, 20 to 25; West Basset, 5 to 6; West Esqair Lie, ½, sellers; West Maria and Fortescue, 4½, sellers; West Poldice, 24; West Wheel Frances, 8½ to 9½; Wheel Basset, 24 to 25; Wheel Kitty (St. Agnes), 2½ to 3½; Mary Hutchings, ¾; York Peninsula 15 per cent. guaranteed preference, ½ to ¾; Yorkshire Mining, 3-16ths to ½.—Gold and Silver Companies: Almada and Tiritio, ½ to ¾; Argentine, 6½ to 7; Australasian Mines Investment, ¼ to ¾; Baya Consols Silver, 5, sellers; Battle Mountain, 1 to 1½; Cedar Creek, ¾ to 1; Chontales, 1 ½; Colorado Terrible Lode, 2 to 2½; Don Pedro North del Rey, ¾ to 1; Eberhardt and Aurora, 8½ to 9; Exchequer, ¼ to ¾; Frontino and Bolivia, 1½; I.X.L., 4; Gold Run, 18s., sellers; Javali, ½ to ¾; Malpas, ¾; New Pacific, ¼; New Zealand Kapanga, ½ to 1; Pestana United, ½; Port Phillip and Colonial, ¾ to ¾; Rica, 2s. to 4s.; Santa Barbara (late Pari), 1 to 1½; South Aurora, 5½; Sweetland Creek, 2½ to 3; Tecoma, 6s., buyers; Thornhill Reef, ¾; United Mexican, 2½ to 3½; Welsh "The," Gold, ¾; Winter's Freehold, 3½, sellers.—Miscellaneous Companies: Aberdeen Lime, 7½; Bede Metal and Chemical, 3½ dis.; British Agricultural Association, 2, sellers; ditto 7 per cent. preference, 5, sellers; Conglat and Slab, 10, sellers; General Sewage and Manure, 4 to 5; Langdale's Chemical Manure, 5½, sellers; Lawe's Chemical, 7½ to 7¾; ditto 7 per cent. preference, 10, sellers; Native Guano, 3½; Newcastle Chemical, 3½ dis.; North Cornwall Kaolin, ¾, sellers; Phospho-Guano A, 7; ditto B, 2½ to 3½; Thames Chemical, 5, sellers; and subjoined are the latest prices, &c., of those quoted on the Stock Exchanges:—

Share.	Per cent.	Rate per cent.	Description of shares.	Last price.
10	10	10	Arncliffe Coal (Limited)	7
10	10	10	Benhar Coal (Limited)	11½
10	10	10	Ditto	6½
100	35	12½	Bolckow, Vaughan, and Co. (Lim.)	47½
10	10	10	Cairnstable Gas Coal (Limited)	9½
10	10	10	Chillingham Iron (Limited)	5
32	29	5	Ebbw Vale Steel, Iron, and Coal (Lim.) ..	13½
10	4	nil	Fife Coal (Limited)	4
10	10	10	Glasgow Port Washington Iron & Coal (L.)	4
10	10	10	Ditto Prepaid	4
10	10	10	Lochore and Capella (Limited)	8½
10	10	10	Marbella Iron Ore (Limited)	78s.
10	10	10	Monkland Iron Ore (Limited)	2½
10	10	10	Ditto Guaranteed Preference	2½
100	100	100	Nant-y-Glo & Blaenau Colliery (L.)	82½
10	4	15	Omoa and Cleland Iron and Coal (Lim.) ..	2½
1	1	15	Scottish Australian Mining (Limited)	1½
50	50	10	Shotts Iron	65
10	8	10	Ditto New, issued at 2½ prem. ..	8
COPPER, SULPHUR, TIN.				
10	7	—	Canadian Copper Pyrites (Limited)	20s.
10	10	—	Ditto All paid	6½
10	7	20s.	Cape Copper (Limited)	28
2	2	—	Dunnsley Wheel Phoenix Tin (Limited) ..	2s.
1	1	12½	Glasgow Caradon Copper Mining (Lim.) ..	1½
1	15s.	12½	Ditto New	21s. 6d.
10	9	—	Huntington Copper and Sulphur (Lim.) ..	25s. 6d.
25s.	25s.	—	Kapunda Mining (Limited)	34
4	4	—	Pauline Copper (Limited)	1½
10	10	—	Russian Copper (Limited)	3½
10	10	25	Tharsis Copper and Sulphur (Limited) ..	21½
10	7	25	Ditto New	14½
1	1	—	York Peninsula Mining (Limited)	¾
GOLD, SILVER.				
30	20	—	Emma Silver Mining (Limited)	1½
10	10	—	Flagstaff Silver Mining (Limited)	1
5	5	—	Last Chance Silver Mining (Limited)	¾
5	5	—	Richmond Mining (Limited)	7½
OIL.				
10	7	2½	Dalmay Oil (Limited)	8½
10	10	—	Uphall Mineral Oil (Limited)	7
10	8½	5	Young's Paraffin Light & Mineral Oil (L.)	7½
MISCELLANEOUS.				
50	25	15	London and Glasgow Engineering & Iron	21
20	11½	—	Shipbuilding (Limited)	21
10	10	8	Peruvian Nitrate (Limited)	11½
10	4	8	Scottish Wagon (Limited)	10½
10	4	8	Ditto New	4½

Last day for this account Jan. 10; settling day, Jan. 13. NOTE.—The above list of mines and auxiliary associations is as full as can be ascertained, Scotch companies only being inserted, or those in which Scotch investors are interested. In the event of any being omitted, and parties desiring a quotation for them and such information as can be ascertained from time to time to be inserted in this list, they will be good enough to communicate the name of the company, with any other particulars as full as possible.

J. GRANT MACLEAN, Stock and Share Broker.

Post Office Buildings, Stirling, Dec. 31.

WEST CUMBERLAND IRON AND COAL.—The position of the pig iron trade in the western division of the county has not undergone any great change since our last report; but it is satisfactory to state that the firmness which has been exhibited for some time past is still maintained. Manufacturers continue to receive many enquiries, principally from home buyers, who are anxious for quantities to be delivered over 1875, but, except in a few instances, these enquiries do not result in actual business, as makers are averse to selling for so long a period at the present low rates, which leave very little profit. Prices are now nominally based on 77s. 6d. per ton for No. 1 Bessemer, and sales have been made at this rate, but for large quantities somewhat lower prices are taken. The Welsh demand continues good, and shows no sign of cessation. It would not be surprising if the makers were again asserting their supremacy in that district, from which they have been partly excluded by other brands. Iron ore proprietors are pretty well sold forward, and are chary of selling large quantities for forward delivery. Most of the mine-owners are quoting and obtaining higher prices. Coke is firm at late rates, and is not likely to be reduced further. The demand for bar iron is improving, and the mills have secured work for a short time in advance. There is a pretty active demand for coal, but prices manifest no improvement.

MANUFACTURE OF COKE.

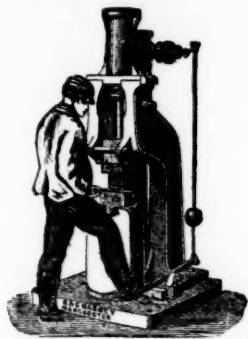
An improved form of coke oven, which is claimed to produce about 25 per cent. more coke, and to effect more than 50 per cent. saving in the cost of labour, has recently been introduced by Messrs. McLANAHAN, STONE, and BAYLEY, of Hollidaysburg, Pennsylvania, and has given great satisfaction. The ovens are 36 in. wide, 7 ft. high, and 22 ft. long, and present the appearance of a succession of arcades, closed at each end with iron doors. The ovens are surrounded on the two sides and bottom with combustion chambers, in which the volatile matter is burned as it passes away from the coal that is being coked in the ovens. The burning of this gas maintains a high and certain heat sufficient to coke the coal. It is claimed that the loss of carbon usual in coking coal in pits or beehive ovens is avoided, the waste gases being utilised to supply the heat for coking. There is a great saving in the new ovens in the small amount of labour required to discharge the coke and re-fill the ovens with fresh coal, not more than ten minutes being required for the entire operation.

The ovens are charged by means of hopper-filling trucks, which run on rails above the ovens. Each oven has two filling holes, so that the coal may be properly distributed in the oven. The discharge is effected by a powerful steam ram, which moves to and fro in front of the ovens on a suitable railway. At the end of a long rack is a head, which fits the oven; this is pushed through the oven by aid of powerful gearing, and expels the coke from the door at the opposite end, the coke being left on the cooling ground on the other side of the oven; the ram is then withdrawn, the door closed, covers taken from the filling holes, and coal dropped in before the oven has had time to cool. The charge of an oven is about 8 tons, and in 72 hours this charge is coked, producing 6 tons in coke; the cost of labour is about 1s. 6d. per ton of coke produced; this is a yield from the coal of 75 per cent., and careful experiments have shown that coal from the same mine coked in pits and beehive ovens during the most favourable weather yielded but 60 per cent. from the coal at a cost for labour of 3s. per ton of coke. Taking the year round, however, the pits and beehive ovens yielded but 50 per cent. from the coal. The coal in Jackson and Vinton county, Ohio, although existing in great quantities, has until recently been

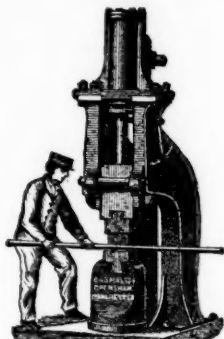
B. & S. MASSEY, OPENSHAW, MANCHESTER.

PRIZE MEDALS Awarded:—Paris, 1867; Havre, 1868; Highland Society, 1870; Liverpool, 1871; Moscow, 1872; Vienna, 1873; Scientific Industry Society, 1875, Leeds, 1875.

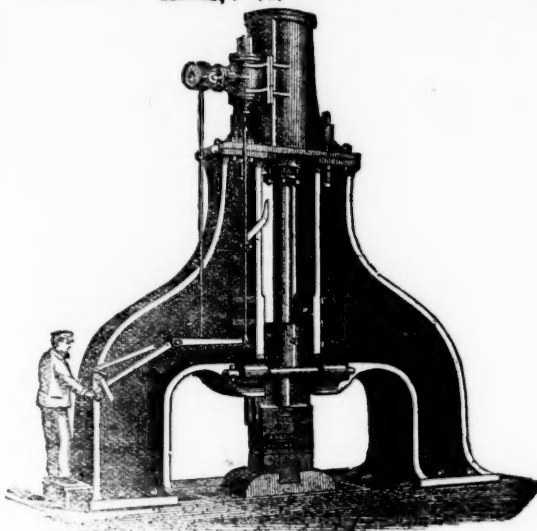
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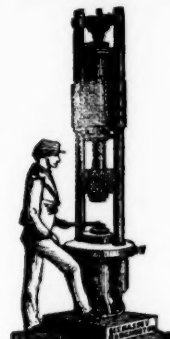


General Smithy Hammer.

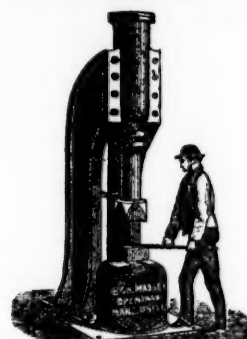


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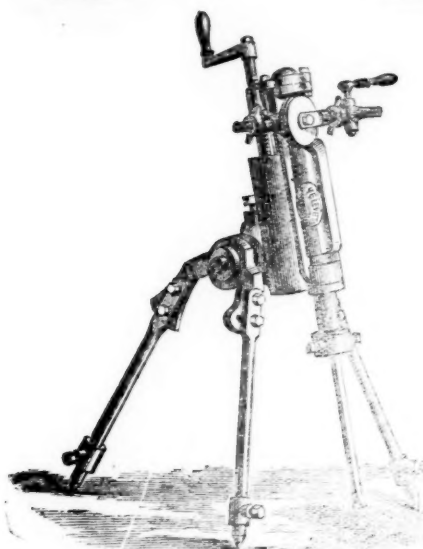
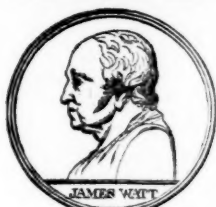
General Smithy Hammer.

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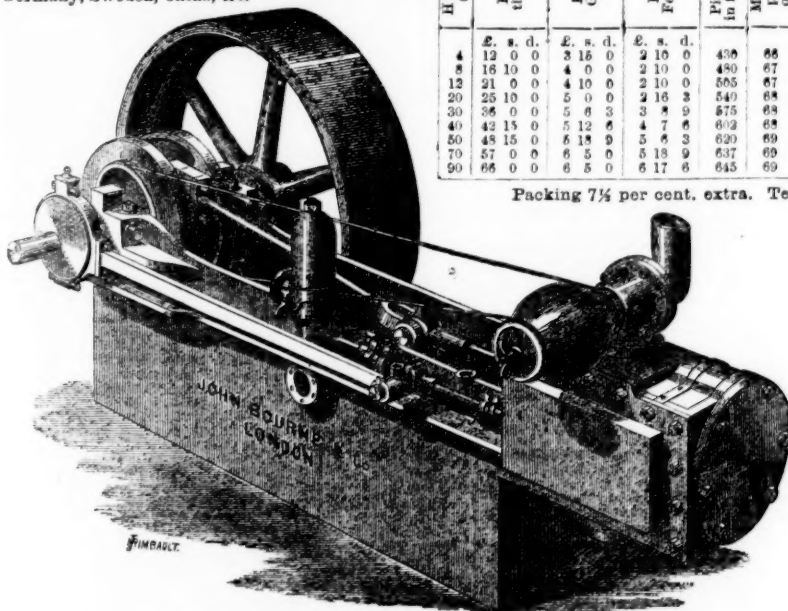
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These engines have just been awarded a Silver Medal at the Manchester Exhibition, and about 1800 H.P. of them have been sold in a few months to North and South America, New Zealand, Australia, the Cape, Russia, Spain, Portugal, France, Germany, Sweden, China, &c.

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4	£ 8. 0. 0	£ 3. 15. 0	£ 2. 10. 0	430	66	27 17 0	10 15 0
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30	36 0 0	5 8 3	3 8 9	575	68	57 19 4	15 18 0
40	42 15 0	5 12 6	4 7 6	602	68	70 9 0	17 11 0
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70	57 0 0	6 5 0	5 18 9	637	69	Two boilers.	
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Packing 7½ per cent. extra. Terms, Cash.



From **ANDREW LAMB, Esq.,** Superintending Engineer, P. and O. Steam Co.

Peninsular and Oriental Steam Navigation Company, Southampton, March, 1875.

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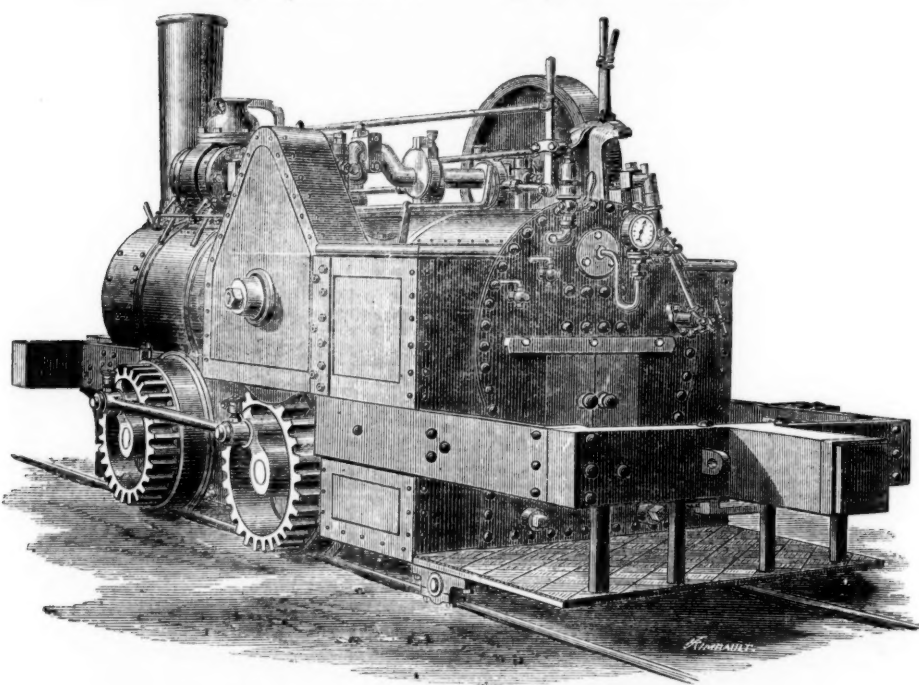
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25000 Aberdaunant, * <i>s. l.</i> , Llandlides*	1 0 0 ..	1 3/4 ..	1 1/2	1 3/4	1 3/4
10000 Aberystwyth, * <i>s. l.</i> , Cardigan	5 0 0 ..	1 18 6 ..	—	—	—
18000 Ambrose Lake, <i>t.</i> , <i>l.</i> , Liskeard	5 0 0 ..	—	—	—	—
12000 Assheton, <i>t.</i> , Carnarvonshire*	5 0 0 ..	1 1/2 ..	3/4	1 1/4	1 1/4
50000 Ballycunniamk, * <i>c.</i> , Schull	2 0 0 ..	—	—	—	—
12000 Bedford, United, <i>c.</i> , Tavistock	1 17 8 ..	1 1/2 ..	1 1/4	1 1/4	1 1/4
28000 Belstone, * <i>c.</i> , Devon (25,000 fully pd.)	1 0 0 ..	2 ..	1 1/2	2	2
13000 Blue Hill, * <i>c.</i> , <i>s. l.</i> , St. Agnes	2 6 8 ..	—	—	—	—
35000 Bog, <i>l.</i> , Shrognore*	2 0 0 ..	—	—	—	—
20000 Bowden Hill, * <i>ma.</i>	1 0 0 ..	3/4 ..	3/4	3/4	3/4
30000 Brynmarf, <i>c.</i> , Cardigan	1 0 0 ..	—	—	—	—
30000 Burrow & Butson, * <i>t.</i> , <i>c.</i> , St. Agnes	1 0 0 ..	—	—	—	—
42528 Cadairan, <i>s. l.</i> , Cardigan* (25 sh.)	3 19 0 ..	—	—	—	—
4235 Ewch Consols, <i>s. l.</i> , Cardigan* (25 sh.)	4 19 6 ..	—	—	—	—
30000 Caldbek Pells, <i>l.</i> , Cumberland*	2 0 0 ..	—	—	—	—
5584 Carn Camborne, <i>c.</i> , <i>t.</i> , Camborne	5 8 6 ..	3/4 ..	3/4	3/4	3/4
10000 Cathedral, <i>c.</i> , <i>t.</i> , Gwennap*	5 0 0 ..	1 1/2 ..	1 1/2	1 1/2	1 1/2
30000 Cefn Brynno (lim. to 25)	1 0 0 ..	—	—	—	—
20000 Central Foxdale, <i>l.</i> , Isle of Man* (25 sh.)	1 0 0 ..	—	—	—	—
10000 Central Van, <i>l.</i> , <i>l.</i> , Llandlides	5 0 0 ..	—	—	—	—
24000 Court Grange, <i>s. l.</i> , <i>c.</i> , Cardiganshire	1 0 0 ..	—	—	—	—
15000 Cwm Nant Ddu, * <i>l.</i> , Montgomery	1 0 0 ..	—	—	—	—
10000 Denbighshire Consolidated, <i>l.</i> *	3 0 0 ..	3 ..	2 3	2 3	2 3
656 Ding Dong, <i>t.</i> , Gualv	49 14 6 ..	6 ..	5 6	5 6	5 6
10000 Dolven Consols, <i>c.</i> , Cardigan*	1 0 0 ..	—	—	—	—
10000 Dobby Syke, <i>l.</i> , Durham*	0 5 0 ..	—	—	—	—
15000 Ducky Great Consols, <i>c.</i> , <i>l.</i> , Stock	5 0 0 ..	—	—	—	—
15000 Dyffke, * <i>l.</i> , Montgomeryshire	5 0 0 ..	—	—	—	—
512 East Bassett, <i>c.</i> , Redruth*	6 0 0 ..	—	—	—	—
8000 East Black Craig, * <i>l.</i> , Scotland	78 15 0 ..	2 1/2 ..	2 3/4	2 3/4	2 3/4
4000 East Chirton, <i>l.</i> , Perranzabuloe	2 0 0 ..	—	—	—	—
4000 East Grenville, <i>c.</i> , Camborne	7 10 0 ..	1 3/4 ..	1 1/4	1 1/4	1 1/4
5000 East Van, <i>l.</i> , <i>l.</i> , Brecknockshire.	7 8 ..	—	—	—	—
3000 Elgar, * <i>s. l.</i> , Llandlides*	1 0 0 ..	—	—	—	—
2000 Florence and Tonkin United* <i>l.</i>	5 0 0 ..	3 1/2 ..	2 3/4	2 3/4	2 3/4
5000 Frank Mills, <i>l.</i> , Christow	1 0 0 ..	—	—	—	—
10000 Frowellan, <i>l.</i> , Mont.* [4000 sh. fy. pd.]	0 10 0 ..	—	—	—	—
5000 Furze Hill, <i>t.</i> , Tavis.	4 16 0 ..	3/4 ..	3/4	3/4	3/4
2500 Garton, <i>c.</i> , Tavistock	1 0 0 ..	—	—	—	—
5000 Gilfach, <i>s. l.</i> , Llangadog	1 0 0 ..	—	—	—	—
10000 Glas Severn, <i>s. l.</i> , Flintshire	4 1 6 ..	3/4 ..	3/4	3/4	3/4
10000 Gobbett, <i>t.</i> , Dartmoor	2 0 0 ..	—	—	—	—
10000 Goginan, and Level Newydd, Card.	1 0 0 ..	—	—	—	—
10000 Gold, <i>c.</i> , Merionethshire	1 0 0 ..	—	—	—	—
10000 Gorsedd and Merlyn Cons., <i>l.</i> , Flint	2 10 0 ..	—	—	—	—
10000 Gt. E. Foxdale, <i>l.</i> , <i>l.</i> , of Man (21 sh.)	1 0 0 ..	3 ..	2 3/4	2 3/4	2 3/4
10000 Great Pant-y-Pydew, <i>l.</i> , Holywell	0 14 0 ..	—	—	—	—
10000 Great Wh. Lovell, <i>t.</i> , Wexford	2 0 0 ..	—	—	—	—
10000 Grosvenor, <i>l.</i> , Holywell (21 sh.)	2 0 0 ..	—	—	—	—
10000 Harwood, * <i>l.</i> , Durham	3 14 0 ..	—	—	—	—
10000 Keswick United, <i>l.</i> *	0 7 0 ..	—	—	—	—
10000 Kilbreth, <i>t.</i> , Chacewater	0 15 0 ..	1 1/4 ..	3/4	1 1/4	1 1/4
10000 Kingston Consols, <i>s. l.</i> , Cornwall	5 0 0 ..	—	—	—	—
10000 Ladywell, * <i>l.</i> , Salop	1 2 0 ..	3/4 ..	3/4	3/4	3/4
10000 Lervant, <i>c.</i> , Dist. Just	1 0 0 ..	—	—	—	—
10000 Llanarmon, Denbigh	1 0 0 ..	3/4 ..	3/4	3/4	3/4
10000 Llandilo, <i>s. l.</i> , <i>l.</i> , Flintshire	1 0 0 ..	2 1/2 ..	2 3/4	2 3/4	2 3/4
10000 Llandlides, <i>l.</i> , Montgomery	2 0 0 ..	—	—	—	—
10000 Llanfyllter, <i>c.</i> , <i>t.</i> , <i>ma.</i> , Llanfyllter	50 0 0 ..	—	—	—	—
10000 Llanfyllter, <i>c.</i> , <i>t.</i> , <i>ma.</i> , Llanfyllter	3 0 0 ..	2 1/2 ..	3 3/4	3 3/4	3 3/4
10000 Llanfyllter, <i>c.</i> , <i>t.</i> , <i>ma.</i> , Llanfyllter	1 0 0 ..	—	—	—	—
10000 Llanfyllter, <i>c.</i> , <i>t.</i> , <i>ma.</i> , Llanfyllter	1 0 0 ..	—	—	—	—
10000 Llanfyllter, <i>c.</i> , <i>t.</i> , <i>ma.</i> , Llanfyllter	2 0 0 ..	2 1/2 ..	2 3/4	2 3/4	2 3/4
10000 Llanfyllter, <i>c.</i> , <i>t.</i> , <i>ma.</i> , Llanfyllter	0 16 0 ..	—	—	—	—
10000 Llanfyllter, <i>c.</i> , <i>t.</i> , <i>ma.</i> , Llanfyllter	5 0 0 ..	3 1/4 ..	3 3/4	3 3/4	3 3/4
10000 Llanfyllter, <i>c.</i> , <i>t.</i> , <i>ma.</i> , Llanfyllter	4 0 0 ..	1 1/2 ..	1 3/4	1 3/4	1 3/4
10000 Llanfyllter, <i>c.</i> , <i>t.</i> , <i>ma.</i> , Llanfyllter	4 0 0 ..	1 1/2 ..	1 3/4	1 3/4	1 3/4

JANUARY 1, 1876.

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Shares.	Company.	Paid.		Price.	
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15	Albion Steel and Wire Co. [L.]	12	10 0	13 1/2	13
5	Altamont Colliery Co. [L.]	8	0 0	par	13
100	Asbury Co. [L.]	90	0 0	82	30 1/2
10	Bagnall, John, and Sons [L.]	10	0 0	6	5
10	Benhar Coal and Sons [L.]	10	0 0	1	2
50	Bilbao Iron Ore [L.]	50	0 0	7	5
10	Bilston & Crump Meadow Coll. Co. [L.]	10	0 0	1/2	dis.
50	Blacen Cwmabai Coal Co. [L.]	4	0 0	12 1/2	12 1/2
50	Blacenavon Iron and Steel Co. [L.]	4	0 0	—	—
100	Bolton, Vaughan, and Co. [L.]	35	0 0	12 1/2	12 1/2
50	Bowling Iron Co. [L.]	50	0 0	—	—
50	Britannia Ironworks [L.]	40	0 0	25	24
50	Brown, Bailey, and Dixon [L.]	70	0 0	6	7
100	Brown, John, and Co. [L.]	5	0 0	par	1/2
5	Cakemore Colliery Co. [L.]	80	0 0	8 1/2	5 1/2
100	Cammell and Co. [L.]	8	0 0	7	10
20	Cannock and Huntington Coal [L.]	2	0 0	—	—
10	Cardiff & Swansea Sea Coal Co. [L.]	7	10 0	7 1/2	3
10	Cardigan Steel and Wire Co. [L.]	40	0 0	32	1 1/2
10	Central Swedish Iron and Steel [L.]	10	0 0	17	31
5	Chapel House Colliery	10	0 0	5 1/2	5 1/2
50	Charterley Iron Co. [L.]	5	0 0	13 1/2	13
10	Chillingworth Iron Co. [L.]	40	0 0	17	16
10	Clee Hill Colliery Co. [L.]	10	0 0	5 1/2	5 1/2
10	Consett Iron Co. [L.]	7	10 0	12 1/2	13
1	Consett Spanish Ore [L.]	1	0 0	22 1/2	21 1/2
50	Cooke, William, and Co. [L.]	30	0 0	6	5
20	Darlington Iron Co. [L.]	10	0 0	11 1/2	11 1/2
50	Davy Brothers [L.]	22	10 0	16 1/2	16 1/2
5	Diamond Fuel Co. [L.]	4	10 0	7	6
32	Ebbw Vale Co. [L.]	29	0 0	18 1/2	18 1/2
20	General Mining Ass. [L.] (E) returned	9	0 0	4	16
2	Gwynnwillim Colliery Co. [L.]	17	0 0	7	6
15	Hopkins, Gilkes, and Co. [L.]	10	0 0	6	dis.
10	Ifton Rhyn Colliery Co. [L.]	10	0 0	6	5 1/2
50	Knowles, Andrew, and Sons [L.]	17	0 0	9 1/2	9
10	Llay Hall Coal, Iron, & Firebrick [L.]	10	0 0	7	7 1/2
50	Littledean Walside Coll. Co. [L.]	5	0 0	—	—
50	Lydney and Wigwag Iron Ore [L.]	7	5 0	23	24
50	Marbella Iron Ore Co. [L.]	10	0 0	8 1/2	7 1/2
50	Mersey Steel and Iron Co. [L.]	5	0 0	6 1/2	6
50	Mold and Iron Co. [L.]	5	0 0	3 1/2	dis.
50	Mold Argoed Colliery Co. [L.]	5	0 0	—	—
50	Monkland Iron and Coal Co. [L.]	10	0 0	7 1/2	7 1/2
50	Mwyndy Iron Ore [L.]	3	10 0	2	1 1/2
50	Nant-y-Glo and Blaizna (8 p.e. pref.)	100	0 0	30	32 1/2
50	Nerburda Coal and Iron	20	0 0	16	14 1/2
50	New Sharlston Collieries [L.] Pref.	8	0 0	—	—
50	Newport Abercromby Coal Co. [L.]	8	0 0	—	—
50	Northampton Coal, Iron & Wagon [L.]	8	0 0	—	—
50	Northfield Iron Co. [L.]	8	0 0	—	—
50	Norton Green Coal Co. [L.]	1	0 0	3 1/2	2 1/2
50	Palmer's Shipbuilding and Iron [L.]	25	0 0	14 1/2	13 1/2
50	Parkgate Iron Co. [L.]	65	0 0	11 1/2	12 1/2
50	Patent Nut and Bolt Co. [L.]	14	0 0	7 1/2	7 1/2
50	Patent Shaft and Axletree [L.]	10	0 0	5	4
50	Pellau Coal and Iron [L.]	40	0 0	—	—
50	Phoenix Bessemer [L.]	50	0 0	—	—
50	Rhymney Iron Co. [L.]	50	0 0	—	—
50	Samuel Fox and Co. [L.]	50	0 0	—	—

Nantley, <i>t, c, Kea</i>	5	0	0	6	...	...	...	100	8
Nant-y, Montgomeryshire*	9	14	0	0	...	...	...	50	8
Nanty Moch, <i>t, c, Llanbadarnfawr</i>	1	0	0	0	...	...	...	50	8
Nant-y-Ricket, <i>t, c, Llanbadarnfawr</i>	1	0	0	0	...	...	...	100	8
Nant-y-Ronen, <i>t, c, Llanbadarnfawr</i>	5	0	0	0	...	...	...	50	8
New Beldon, <i>t, c, Cardigan</i>	1	0	0	0	...	...	...	20	8
New Caroline, <i>c, Northumberland*</i>	1	0	0	0	...	...	...	50	8
New Consols, <i>c, Perranuthnoe</i>	1	0	0	0	...	...	...	20	8
New Crikheath, <i>t, c, Shropshire</i>	3	0	0	0	...	...	...	100	8
New Dolcoath, <i>t, c, Camborne</i>	2	0	0	0	...	...	...	100	8
New Fowey Consols, <i>t, St. Blazeys*</i>	3	0	0	0	...	...	...	20	8
New Hendra, <i>t, Breage</i>	3	0	0	0	...	...	...	10	8
New Pembroke, <i>t, c, Par Station</i>	2	9	0	0	...	...	...	100	8
New Rosewarne, <i>c, Gwinear</i>	5	0	0	0	...	...	...	50	8
New South Merilyn, <i>t, Flint*</i>	2	10	0	0	...	...	...	25	8
North Lacey, <i>* Isle of Man</i>	2	0	0	0	...	...	...	20	8
North Pines, <i>* Isle of Man</i>	2	0	0	0	...	...	...	1	8
North Whelan Town, <i>t, c, Holywell</i>	1	19	0	0	...	...	...	100	8
North Pool, <i>* c (Res. 2500 Feb. 5000)</i>	1	0	0	0	...	...	...	100	8
North Rosewarne, <i>c, Gwinear</i>	2	0	0	0	...	...	...	50	8
North Treleigh Wood, <i>t, Redruth*</i>	6	12	0	0	...	...	...	50	8
North Trekerby, <i>c, St. Agnes</i>	1	0	0	0	...	...	...	25	8
North Talargoch, <i>t, Flintshire*</i>	3	15	4	0	...	...	...	10	8
North Trecroft, <i>t, c, Lelant*</i>	2	0	0	0	...	...	...	100	8
North Trecroft, <i>t, c, Lelant*</i>	4	0	0	0	...	...	...	100	8
North Trecroft, <i>t, c, Lelant*</i>	3	0	0	0	...	...	...	100	8
North Trecroft, <i>t, c, Lelant*</i>	5	0	0	0	...	...	...	100	8
North Trecroft, <i>t, c, Lelant*</i>	5	0	0	0	...	...	...	100	8
North Trecroft, <i>t, c, Lelant*</i>	2	5	0	0	...	...	...	100	8
North Trecroft, <i>t, c, Lelant*</i>	2	0	0	0	...	...	...	100	8
North Trecroft, <i>t, c, Lelant*</i>	5	0	0	0	...	...	...	100	8
North Trecroft, <i>t, c, Lelant*</i>	2	0	0	0	...	...	...	100	8
North Trecroft, <i>t, c, Lelant*</i>	5	0	0	0	...	...	...	100	8
North Trecroft, <i>t, c, Lelant*</i>	1	7	6	0	...	...	...	100	8
North Trecroft, <i>t, c, Lelant*</i>	0	10	0	0	...	...	...	100	8
North Trecroft, <i>t, c, Lelant*</i>	0	10	0	0	...	...	...	100	8
North Trecroft, <i>t, c, Lelant*</i>	4	17	8	0	...	...	...	100	8
North Trecroft, <i>t, c, Lelant*</i>	1	10	0	0	...	...	...	100	8

W. & P. W. Park Colliery Co. [L.].....	80	0 0 0	29	28	
Ditto New.....	100	0 0 0	34	35	pm.
W. & P. W. Park Colliery Co. [L.].....	10	0 0 0	—	—	
W. & P. W. Park Colliery Co. [L.].....	10	0 0 0	—	—	
W. & P. W. Park Colliery Co. [L.].....	50	0 0 0	14	15	pm.
W. & P. W. Park Colliery Co. [L.].....	55	0 0 0	21	21	pm.
W. & P. W. Park Colliery Co. [L.].....	8	0 0 0	—	—	
W. & P. W. Park Colliery Co. [L.].....	20	0 0 0	—	—	
W. & P. W. Park Colliery Co. [L.].....	50	0 0 0	—	—	
W. & P. W. Park Colliery Co. [L.].....	17	0 0 0	—	—	
W. & P. W. Park Colliery Co. [L.].....	60	0 0 0	—	—	
W. & P. W. Park Colliery Co. [L.].....	10	0 0 0	4	4	pm.
W. & P. W. Park Colliery Co. [L.].....	20	0 0 0	8	8	pm.
W. & P. W. Park Colliery Co. [L.].....	8	0 0 0	—	—	
W. & P. W. Park Colliery Co. [L.].....	100	0 0 0	—	—	
W. & P. W. Park Colliery Co. [L.].....	12	0 0 0	—	—	
W. & P. W. Park Colliery Co. [L.].....	25	0 0 0	5	5	dis.
W. & P. W. Park Colliery Co. [L.].....	10	0 0 0	3	3	dis.
W. & P. W. Park Colliery Co. [L.].....	1	0 0 0	1	1	dis.
W. & P. W. Park Colliery Co. [L.].....	8	0 0 0	—	—	
W. & P. W. Park Colliery Co. [L.].....	100	0 0 0	1	1	dis.
W. & P. W. Park Colliery Co. [L.].....	50	0 0 0	—	—	
W. & P. W. Park Colliery Co. [L.].....	20	0 0 0	7	7	dis.
W. & P. W. Park Colliery Co. [L.].....	5	0 0 0	—	—	
W. & P. W. Park Colliery Co. [L.].....	5	0 0 0	—	—	
W. & P. W. Park Colliery Co. [L.].....	10	0 0 0	—	—	
W. & P. W. Park Colliery Co. [L.].....	70	0 0 0	—	—	
W. & P. W. Park Colliery Co. [L.].....	75	0 0 0	—	—	

[illegible]

TELEGRAPH COMPANIES.			
American	100	0 0..	63 1/4
and Submarine	10	0 0..	6 1/4
United States Cable	20	0 0..	6 1/4
Western, Australia and China...	10	0 0..	6 1/4
Northern	10	0 0..	7 1/4
European	10	0 0..	8 1/4
European Extension	10	0 0..	21 23
and	8	0 0..	2 1/2
India and Panama	100	0 0..	11 1/4
and Brazilian	10	0 0..	20 1/2
Union, 7 per cent. Mort. Bonds	20	0 0..	10 1/4
	\$1000	100	108

MISCELLANEOUS.			
and Great Western Leased			
Mental Trust	100	0 0..	43
Mort. Land and Finance [L.]	5	0 0..	3 1/4
Agricultural	21	10 0..	91
and Ohio, 4 per cent.	100	0 0..	111
New Jersey Con. Mort.	100	0 0..	100 1/4
of Calif., 1st Mort. 6 p.c.	100	0 0..	97
and Real Property [L.]	12	0 0..	1 1/2
ers of Eng. (7 p. & p.c.f.)	26	0 0..	1 1/2
of England [L.]	5	0 0..	1 1/2
and Boring	5	0 0..	1 1/2
Foreign Credit	4	0 0..	1 1/2
er, and Co. [L.]	8	0 0..	1 1/2
and Chem. Works Co. [L.]	10	10 0..	9
hinstone Quarry	5	0 0..	10
y Company	1	0 0..	1 1/2
Copper and Sul. Co.	17	0 0..	21 1/4
ral, \$100 shares	9	0 0..	21 1/4
Louis Bridge, 1st Mort.	100	0 0..	88 1/4
Mort., 7 per cent.	100	0 0..	88
Sinking Fund, 5 p. cent.	100	0 0..	85
ent.	100	0 0..	94 1/2
it [L.]	100	0 0..	106
as Certificate	7	10 0..	7 1/2
n. Mort., A, 6 p. cent.	100	0 0..	8 1/2
unt	100	0 0..	103 1/4
unt [L.]	10	0 0..	10 1/2
Con. Mort., 5 per cent.	5	0 0..	9 1/2
water Company	10	0 0..	95
Mort	5	0 0..	95

Sevier, R. Reduth	4	0	0	2 1/2	1 1/2	1 1/2
Seaton, C. Cambarne	9	10	0	0	0	0
Salvey, J. Montgomery	63	15	0	42	40	40 42
S. Ellogan	11	0	0	2 1/2	3	3 1/2
S. Sanacred	0	10	0	2 1/2	1 1/2	2
S. f, C. Calacoth	0	10	0	0	0	0
S. f, C. Grylla, f	1	0	0	0	0	0
S. St. Agnes	9	15	6	0	0	0
S. Tavistock	2	0	0	0	0	0
S. f, C. Buckfastleigh	1	17	6	0	3	2 1/2 2 1/2
S. Ellogan, C. Cambarne	1	1	0	0	0	0
S. Ellogan, C. Plympton	1	12	6	1 1/2	1 1/2	1 1/2
S. f, Reduth	6	1	0	2 1/2	2	2 1/2
S. Ludgvan	6	1	0	0	0	0
S. f, C. Breage	1	0	0	0	0	0
S. f, Reduth	1	0	0	0	0	0

U. S. Cent., 1910.	100	0 0	108 5	6 ds.
Fund. & p. ct., 1905	100	0 0	108 5	169 1/2
Atlantic Steam	100	0 0	102	163
(ref. sh.)	50	0 0	40	49
res	10	0 0	8	8 1/2
Trac. & Mainte. [L.]	20	0 0	30	34
ious Three per Cents	12	0 0	26	27
and Copper Co.	8	0 0	2 1/2	2 1/2
and Grant, 1st Mort.	10	0 0	21 3/4	93
oilway, 1st Mort.	100	0 0	91	94
	100	0 0	92	

r, copper; *g*, gold; *l*, lead; *s*, silver; *st*, steel;
al, silver-lead; *t*, tin; *z*, zinc.
 Companies; † quoted on the Stock Exchange.
 ‡ have paid dividends.

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